

THE HOME IDEA BOOK



*Published by
Johns-Manville*

1939
E D I T I O N

HELPFUL SUGGESTIONS ON HOW TO GET THE MOST FOR YOUR MONEY IN
BUILDING • REMODELING • DECORATION • MAINTENANCE



Your Home

SO MANY NEW MATERIALS and improvements in construction have been announced in recent years that many folks are wondering just what effect they have had on building and remodeling a home. Perhaps you, too, have specific questions to which you would like the answers.

To bring all this information under one cover would be beyond the scope of a book such as this. Because many new developments are along highly specialized lines, they can be presented best by their creators. But there are many other developments on which specific information can readily be supplied. There are also many phases of home building and improvement which may be somewhat of a mystery to you because you do not understand the methods by which certain results are achieved.

To meet the need for this type of information, this book answers questions about such vital subjects as structural and finishing materials, financing, insulation, color and decoration. It shows transformations that have actually been made, and explains how they were done. And it shows why today's new homes offer values never before possible.

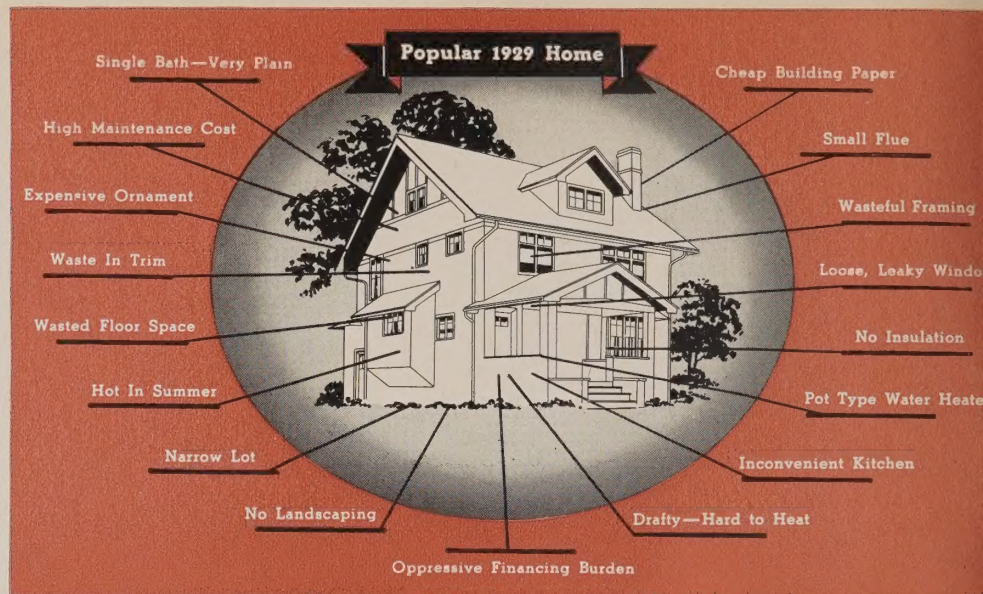
It also describes a new kind of home service, available through local Guilds of building industry factors, which makes the building of a new home or the repair or modernization of one already built easier and safer than ever before.

It is Johns-Manville's sincere hope that you will find this book helpful and that you will want to make it a permanent addition to your library. It will have served its purpose if it is able to remove the mystery about building a new home, or improving your existing home to meet your present needs.

Any additional help you may desire can be obtained from the Johns-Manville Building Materials Dealer in your locality, who will be very glad to help you with your home problems.



Why
TODAY'S HOME
GIVES YOU
"MORE
HOUSE
FOR YOUR
MONEY"



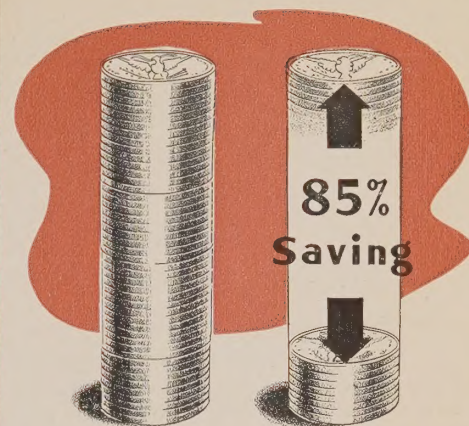
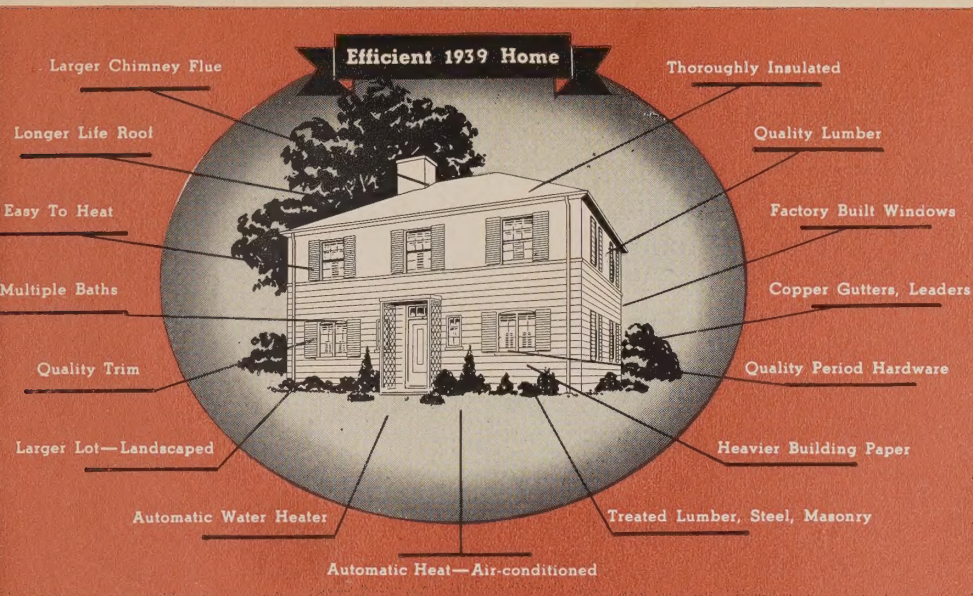
THERE IS AS MUCH DIFFERENCE between the home of today and the 1926-1929 house as there is between the modern streamlined automobiles and the "advanced" models of 10 years ago. Comparison of the two houses shown above reveals some of the many features which distinguish homes of the present day. Even though such important items as air conditioning, insulation, scientific kitchen design, and additional bathrooms have been included, these homes still cost less to buy. Furthermore, maintenance costs have been greatly reduced.

SURVEYS IN THE BUILDING FIELD reveal the fact that the family which occupies the type of home being built today can obtain greater values and advantages than those who live in homes built as recently as 1929. The scope of these advantages cannot be realized without definitely comparing homes built in 1929 with those built within the past year.

**IMPROVED
MATERIALS
AND GREATER
COMFORT**

Some of these advantages have been brought about by improvements in materials and standards of construction; others by the introduction of modern conveniences. The illustrations at the top of the page graphically show some of the reasons why the 1926-1929 homes were expensive, and why homes built today are more efficient, and less costly to buy. In the 1926-1929 home, heating was non-automatic and relatively inefficient. There was no air conditioning—no insulation—very little automatic equipment. Kitchens were poorly arranged, with few cabinets, and small storage space. The house rarely had more than one bathroom and had no lavatory. Copper and brass pipe were used infrequently. In design, the house lacked charm. Furthermore, insufficient attention was given to such important structural details as heavy foundations, tightly fitted windows equipped with built-in weatherstripping, and materials which would resist deterioration.

The home of today, in contrast, is packed with labor-saving, comfort-giving features. Kitchens are scientifically planned, and contain the most modern equipment. There are enough bathrooms. Walls and attic are thoroughly insulated. Windows and doors are weatherstripped, in addition to being tightly fitted. Heating is automatic. Air conditioning is often included. All water pipes are of rust-resistant copper or brass. Architects and builders have learned



THESE PILES OF MONEY graphically illustrate the savings which the 1939 FHA financing plan makes available. The taller pile represents the cost of financing a first and a second mortgage of \$5,000 and \$3,000 respectively, in 1926-1929. The actual cost would have been approximately \$600. Land contract financing, with \$1,000 down on a \$10,000 property often ran as high as \$1,500 for the original money cost. Financing a mortgage of \$8,000 under the FHA plan would cost \$234, including a 2½% commission of \$200, an appraisal fee of \$24, and a survey charge of \$10. This amounts to approximately 2½% of the total \$10,000 home valuation, as compared to former costs ranging from 6% to 15%.

how to conserve by better planning, and maintenance costs have been greatly reduced. But while these strides have been made in the quality of home building, equally important advances have been made in the vital subject of financing. Here again a graphic illustration is necessary to show how much more economical—and how much safer—it is to finance a home under modern methods than it was ten years ago.

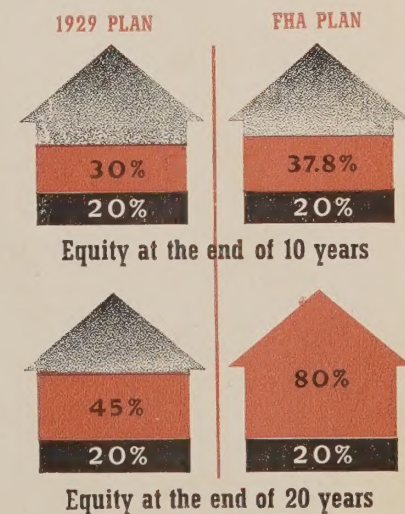
BENEFITS OF MODERN FINANCING

In 1929, home owners were burdened with an oppressive load of initial and continuing financing costs, including first, and often times second and third mortgages, land contracts, bonuses, and renewal fees. On homes in which the original equity was less than 40 to 50 percent, 15 to 25 percent commission was often charged for 3 to 5 year second mortgage financing. Both first and second mortgages were made for short terms, requiring renewal and the payment of renewal fees. Over a period of 20 years, the total financing costs for property in which the owner held an original equity of 20%, totaled from 6% to 15% of the valuation. Repayment of principal was not insisted upon, with the result that little was done to increase the home owner's equity, and consequently he suffered in times of adversity.

Contrast this now outmoded method of home financing with the 1939 FHA insured-mortgage system, which requires an original equity of only 10% to 20%, and guarantees 100% equity within a period not exceeding 20 to 25 years. Because it is a *single-mortgage* system, and equal payments are made monthly on principal, interest, taxes, assessments, fire insurance, mortgage insurance and necessary fees, the FHA plan (1) spreads the burden of financing evenly over the term of the mortgage, (2) eliminates the uncertainty and cost of mortgage renewals, and (3) helps protect the lender against excessive loss.

The cost of financing an \$8,000 FHA mortgage on a \$10,000 home, under this plan, (including commission, appraisal fee and survey charge) amounts to approximately 2½% of the home valuation. This means that the pros-

OWNER'S EQUITY (what he has paid for) in his house is shown below at the end of 10 and 20 years under the 1929 and 1939 methods of financing. In each case the 20% shown in black refers to the initial payment. Whereas the old method made little provision for amortizing the principal, the 1939 FHA plan assures full ownership within 20 years.



pective home owner, through his savings in financing costs alone, can build approximately 10 per cent more actual value into his house than he could have had in 1929. While there are several modern methods of financing home building, the monthly amortization

plan is generally recognized as being the one best suited to the average pocketbook, for the monthly payments are made just like rent. Your Johns-Manville Building Materials Dealer will be glad to tell you where such financing can be secured.

FHA FINANCING OFFERS A SIMPLE, EASY METHOD TO PAY FOR YOUR HOME

FHA APPRAISED VALUE OF HOUSE AND LOT	MINIMUM DOWN PAYMENT OR LAND EQUIVALENT	Maximum Amount of Mortgage Obtainable	APPROXIMATE MONTHLY PAYMENTS (INCLUDING PRINCIPAL, INTEREST, TAXES AND INSURANCE)		
			15 YEARS	20 YEARS	25 YEARS
\$3,000.00	\$ 300.00	\$2,700.00	\$28.00	\$24.00	\$22.00
4,000.00	400.00	3,600.00	37.00	33.00	30.00
5,000.00	500.00	4,500.00	47.00	41.00	37.00
6,000.00	600.00	5,400.00	56.00	49.00	45.00
7,000.00	800.00	6,200.00	65.00	57.00	—
8,000.00	1,000.00	7,000.00	74.00	65.00	—
10,000.00	1,400.00	8,600.00	91.00	80.00	—
12,000.00	2,400.00	9,600.00	103.00	91.00	—
15,000.00	3,000.00	12,000.00	129.00	113.00	—

NOTE—Obviously these figures are merely reasonably accurate approximations. They are subject to change and will vary with local conditions. Maximum mortgage terms of 25 years are applicable only to appraised valuations not in excess of \$6,000.00. Mortgages for as much as 90% of the appraised valuation are eligible on appraisal values not in excess of \$6,000.00. For appraised valuations in excess of \$6,000.00 and not in excess of \$10,000.00 mortgages are eligible for 90% of the appraised valuation up to \$6,000.00 and 80% on the difference between \$6,000.00 and \$10,000.00. A mortgage limit of 80% of the appraised valuation applies on valuation in excess of \$10,000.00 with a mortgage limit of \$16,000.00. The mortgages are repaid in monthly payments. Interest is at 5%. FHA insurance is one-half of one per cent on the decreasing principal amount on valuations in excess of \$6,000.00; one-quarter of one per cent on valuations of \$6,000.00 or less. Taxes are assumed to be 2% of appraised value. Fire insurance is estimated at one-half of one per cent of appraised value.

How to Save \$3,402.75 On a \$5,000.00 Mortgage THIS WAY

1. You borrow \$5,000.
2. You reduce the principal \$50 every 3 months.
3. In 25 years you pay only \$3,472.25 in interest at 5%.
4. In 25 years you owe nothing.

COST \$8,472.25

NOT THIS WAY

1. You borrow \$5,000.
2. You don't reduce the principal, but let the debt run.
3. In 25 years you pay \$6,875.00 in interest.
4. 25 years have passed and you still owe \$5,000.

COST \$11,875

The secret lies in reducing the principal. Thus each succeeding interest payment becomes smaller. It's not too late to start. If your property vicinity we will gladly consider your flexibility of our new mortgage of amortization plans. No initial cost, install Periods from

The example at the right was prepared by a well-known financing agency to stress the savings which modern home financing makes possible. Investigate the new mortgage plans now available in order to secure the most economical and satisfactory amortizing mortgage to meet your personal requirements.

SITE SELECTION

and

HOME PLANNING

by R. A. GALLIMORE, Architect

IF A HOME SEEMS JUST PERFECT for a family it is probably because the house has been studied and designed, not only to suit the requirements of that family, but also the character of the plot or piece of property upon which the house is built. It is essential that a house be planned with a definite site in mind, for a house that is beautiful in one setting may be uninteresting or impractical on another site of dissimilar shape and general character. Usually the first major expenditure to be made in building a home is for the purchase of a plot of land or building site. It is therefore well to consider the more vital elements that go to make up one that is satisfactory.

the SITE

LOCATION

When a prospective home builder considers where he wants to live, preference should be given to the community which is progressive, well-kept and reasonably restricted. One that is already settled and well established will usually be free from future assessments for installation of sewer, water, gas and electric services or other improvements. The immediate neighborhood should have no activities which are foreign to its general character and the homes themselves should be well-built and substantial in appearance. Study the trend of development to avoid establishing your home in a neighborhood of depreciating character.

As an investment, your property should continue to be worth its original cost, and as the neighborhood develops you may expect an increase in value. Your neighbors should belong to the same general social order of living to which you are accustomed. Many of them may become intimate friends, and the companionship afforded your children is a factor to be considered. Transportation, local shopping, educational and recreational facilities should be conveniently accessible.

SHAPE AND TOPOGRAPHY

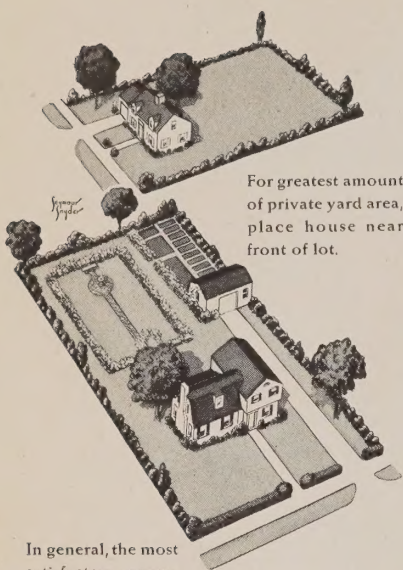
Remember that a small lot of irregular shape usually requires that the house plan be rambling and irregular also. If a small, lower cost house is contemplated, the regularly shaped plot and square, compact house will be found more economical. Consider the topographical character of the site, whether it is level or sloping, high and dry, or low and wet. Bear in mind, especially, that it is costly to level and grade a sloping lot; that low, wet ground usually means additional expense for waterproofing the foundations; and that it will cost more to excavate rock than soft dirt.

If your taste leans toward formal landscaping, which is usually symmetrical and laid out in regular forms, the level or gradually sloping lot will be more suitable. Rugged or extremely sloped plots are more adaptable to irregular or informal planting. The existence of a few good healthy trees is desirable, as they add to the value of the property and enhance the beauty of a house setting. Perhaps a site may have on it a vigorous old oak with wide spreading branches under which one would like to rest, or there may be a ledge casting a shadow across the ground and giving a wild,

The logical choice for a rectangular lot is a house of regular outline.



An irregular plot requires that the shape of the house be irregular also



In general, the most satisfactory appearance can be obtained by placing house about $\frac{1}{4}$ the depth of plot away from the street. Ample front yard space sets off house to advantage without reducing usefulness of rear yard.



BASIC PLAN A
A compact rectangle, with a minimum of exterior wall surface.

BASIC PLAN B
Rambling and flexible. Usually found in one-story homes.



BASIC PLAN C



A long rectangle. Gives maximum of light and air. With addition of bedrooms, garage, etc., courtyard can be formed.



BASIC PLAN D
Simplest of forms, through elimination of dining room. Desirable where cost must be kept at a minimum.

informal character to the spot. These and similar natural characteristics can form valuable advantages on a house site provided they are used properly in planning.

ORIENTATION

The orientation of the plot, or its exposure to the sun and prevailing breezes, determines not only the position of the house but, to a large extent, the room arrangement as well, as will be pointed out later. Having arrived at this stage, thought should be given to the placing and arrangement of the house, as the plot and house should be correlated and function as one unit.

If you wish to obtain privacy in your garden and use it as an outdoor living space, it should be located away from the street. In this case, the *rear* of your plot should have a southern or western exposure. On the other hand, if you desire to make a feature of a dooryard garden at the entrance to your house, the *front* of the plot should have the desirable exposure. Consider the outlook or surrounding scenic features. Perhaps the site may be on high-standing ground with distant views over great stretches of countryside, or it may be a peaceful open slope inclined to the grassy bank of a slow moving river. If the plot is sloping, quite generally the high portion will be more desirable for your house site. This will usually simplify the grading problem and take advantage of any distant view as well. These will form definite advantages provided they lie in the general direction of the desirable exposure. Study other nearby plots. You may find one with the proper exposure and an equally attractive view, in which case the main rooms in your house can be arranged to take advantage of both.

the PLAN

BASIC TYPES

It is almost incredible what a number of schemes of arrangement are possible in the plan of a house. Little can be done in the way of a description of these other than to classify the basic types. It must be remembered that as the house grows smaller in size the possible variations in plan become fewer. The kitchen, living room and dining room are the units around which the plan is built. If the dining room is omitted or becomes part of the living room the plan is simplified still further. Despite the large number of possible variations or schemes of arrangement, the number of basic types is surprisingly small. Variations in the basic type are produced by orientation of the house, the placing of the bedrooms and bath, the placing of the stairs and hall and the varying of relative sizes of the main rooms.

UTILITY

First of all, a house must provide shelter and accommodation, but it must also be conveniently and logically arranged to meet the owner's manner of living. Planning a house is more than drawing lines on paper. It consists in "living" in the house in advance of its being built.

Remember that the living room is the show place of the house. It should be impressive. Since it is a room for relaxation and entertainment, there should be space for sufficient furniture grouped in a hospitable manner. If doors open all around the room it may become no more than a corridor space. Convenient access to other rooms should, however, be provided but these must be arranged so that the principal use of the room is not destroyed.

The dining space, whether it be a separate room, alcove or just a part of the living room, should be directly accessible from the kitchen. If there is a separate dining room, direct access from the living room is usually desirable, so that it may be used in conjunction with the living room as entertainment space when occasions require.

The kitchen is the housekeeper's workshop and it should be as compact and efficient as possible. If at all possible cross ventilation should be arranged to provide a positive change of air during cooking periods. Space and equipment should be provided for the receiving, storing, preparing, cooking and serving of food. This is perhaps the most highly concentrated room in the house and much study should be given to the layout of equipment. Whenever it can be arranged, access from the kitchen to the main entrance of the house should be provided.

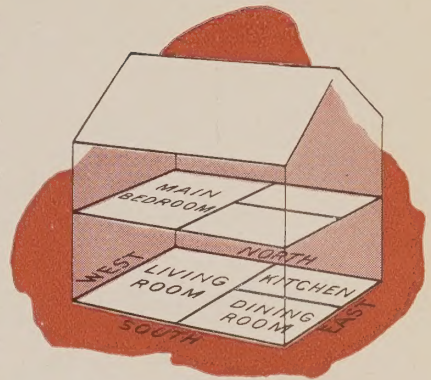
While an entrance hall is desirable, it can be eliminated and the entrance to the house made directly into the living room. In this case, however, the living room should be so arranged that it remains livable, and not merely a means of access to the stairs and other rooms.

The upper hall should provide access to all bed rooms in the most direct manner possible. At least one bath room should be directly accessible from the hall. Bedrooms should have cross ventilation whenever possible and the beds should be arranged in each room so that the remainder of the floor area will be useful as a dressing room or sitting room. Small areas in a bed room are useful only as passages. A generous amount of closet space should be provided throughout the house.

ECONOMY Since framing lumber comes in even lengths, important savings in cost can be made by establishing room sizes accordingly. Other economies result from wise room arrangement and a minimum of waste space. The square, compact type of plan with all hall and passage space reduced to a minimum will be found the most economical. Remember that long halls are always undesirable. Only occasionally, and then only for some special advantage to be gained, should they be tolerated in the small house.

When an irregular or rambling arrangement of rooms is followed, sacrifices in economy of space are usually the result. Study the arrangement of partitions. See that they carry through in as direct a line as possible, and that those on the second story are directly over those on the first story, wherever it can be arranged. This will simplify the construction of your house and in many cases will produce a better room arrangement, and will at the same time simplify the installation of plumbing and heating pipes.

PLACEMENT Good orientation in planning a house means the proper placing of both the house and the main rooms in relation to the sun, prevailing breezes, topography and outlook. It is desirable, for example, that your living room have southern and western exposure. Southeastern is usually satisfactory for the dining room and as far as can be arranged, the main bed rooms should have southern and western exposure. Throughout our country the desirable breezes come almost entirely from the southwest. This forms another reason for placing the main rooms on the southern and western sides of the house.



Suggested arrangement of rooms to make use of natural advantages, such as sunlight and prevailing winds. Main bedroom and living room on the south and west; dining room on southeast; kitchen on northeast.

BEAUTY *of* DESIGN

FINALLY COMES BEAUTY OF DESIGN. This does not necessarily mean the application of ornament, but, more essential than that, the proper use of form, line and color. If you are building in a restricted area in which a specific type of house predominates, you may want your home styled and designed in keeping with the neighboring dwellings, provided, of course, that it fully meets the requirements of your family. In unrestricted neighborhoods, the type of house may be determined completely by your own taste and preferences and how much you can afford to pay for it. It is a wise precaution to avoid style eccentricities and other features of doubtful acceptability in case you should ever desire to rent or sell the house.

There are at least eight architecturally accepted types of home. They offer a variety of effects from which anyone should be able to select a suitable design, bearing in mind that some styles are more appropriate in certain localities or climates than in others. These eight types are indicated in the sketches at the right.



AMERICAN COLONIAL

DUTCH COLONIAL



CAPE COD COLONIAL



GEORGIAN



NORMAN FARMHOUSE

SPANISH



MODERN

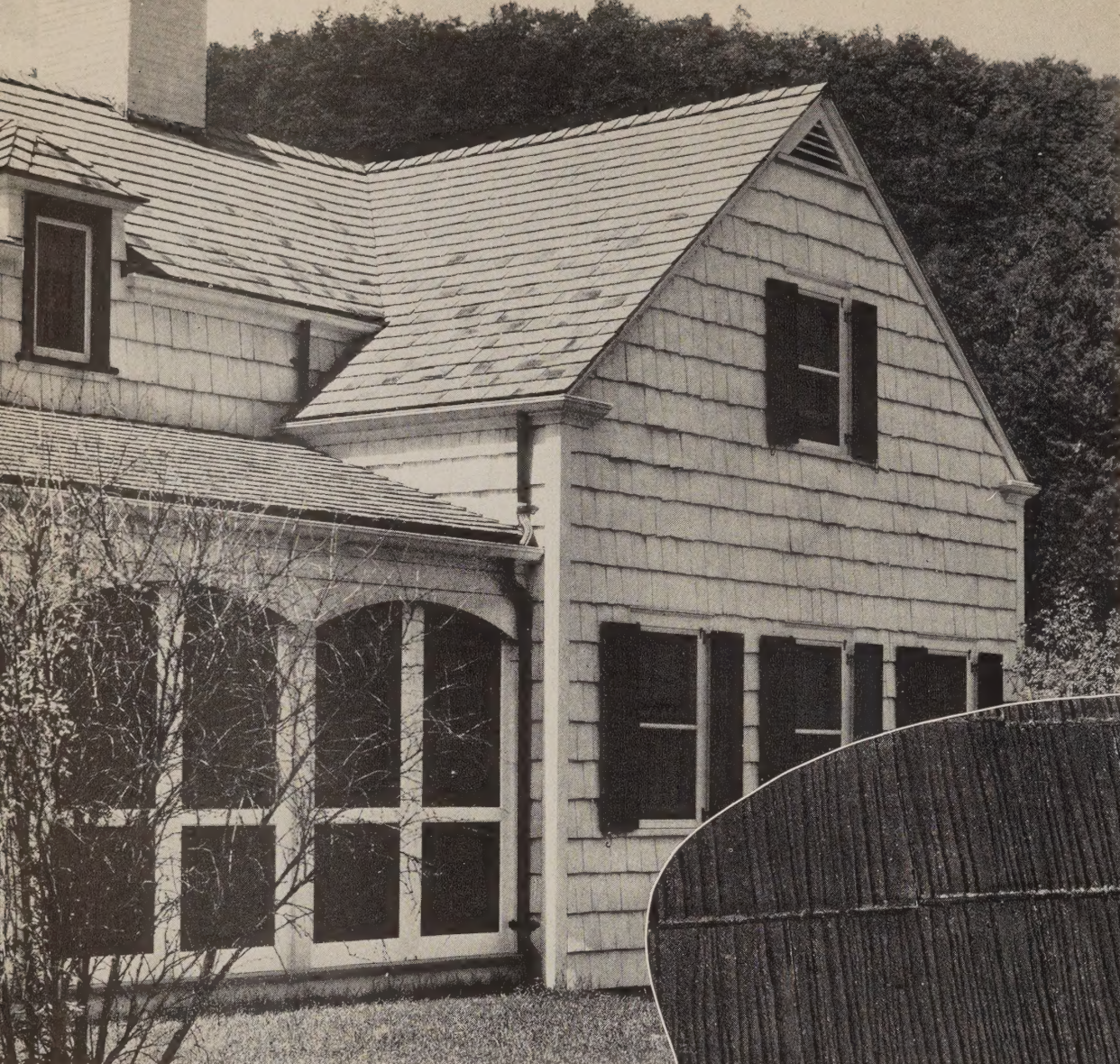


TUDOR

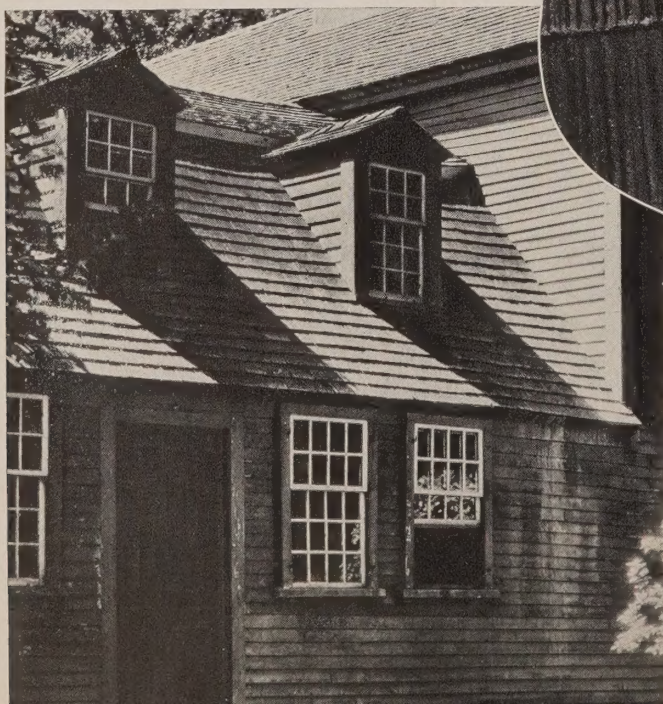


GUIDANCE *of an* ARCHITECT

IT IS SUGGESTED THAT YOU consult with your local building material dealer and obtain his advice on the selection of a capable architect for your home. In your discussion with him you will obtain valuable help and guidance on every phase of building, and this will be a definite safeguard against the many mistakes which the inexperienced layman can very easily make. In addition to designing and planning your home, a good architect draws up the specifications which describe the construction, materials and equipment to be used in your home. He will also supervise the construction of your house if you so desire. The fee which the architect charges for his part in the designing and construction of a home, is modest indeed, when compared with the invaluable service he renders.



E. Dean Parmalee, Arch.



Between the lovely modern Colonial home and the venerable Early American dwelling below there is a common bond — the Johns-Manville Salem Asbestos Shingle Roof. Since the ideal roof is one which bears no trace of newness, even when first applied, the Salem Shingles, with their weathered tones and rugged texture, are often the first choice of those interested in charming homes. A gracious tribute to the authenticity of their design was recently paid to Salem Shingles when they were selected as the new roof for the historic old Hancock-Clarke House at Lexington, Mass. (illustrated at left). On the opposite page are shown two lovely blends created with Salem colors.

the MODERN WAY *to select a* NEW ROOF *for* YOUR HOME

IF YOU WERE TO ASK AN ARCHITECT how he would go about choosing a new roof for your home, he might well reply: "In very much the same way you would pick out a new hat."

After you had recovered somewhat from your surprise, he would explain that the same considerations of individuality and personal taste apply in both cases. To a certain extent, your hat expresses your personality; to an even greater extent, the roof should express the personality of your home.

Perhaps you have never thought about a roof in just this way. "The first job of a roof is to protect," you may say, and you are right. But protection is something which the homeowner may today take for granted, and it is now possible, thanks to modern manufacturing ingenuity and skill, to consider the selection of a roof from the more artistic standards of style and appearance.

How has this come about? Nature herself pointed the way when she created asbestos, the magic mineral, centuries ago. Having endured through untold ages asbestos was nature's contribution to man's need for a roofing material that would give complete and lasting protection.

It remained for the scientist, however, to put nature's handiwork to practical use — to fabricate in asbestos and portland cement a roofing shingle which would meet the all-important aesthetic requirements of color, texture and style, while retaining the ability to withstand fire and weather. Asbestos shingles are the result.

Today, when you select a roof of these beautiful shingles you may give expression to practically any preference of personal taste, secure in the knowledge that they will be good looking, durable and fireproof. Shall it be a roof of subdued richness? Or will it be a glorious blend of rich autumnal reds and browns? Whatever you prefer, you can choose an asbestos shingle



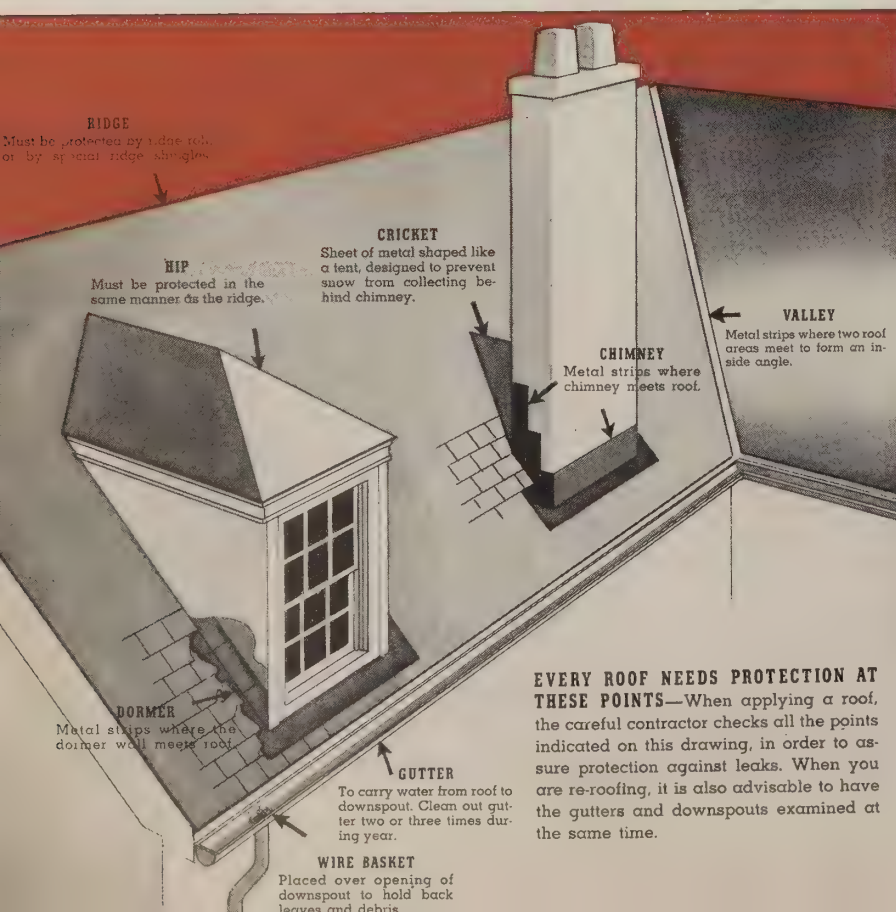


that will harmonize perfectly with the architectural design and color scheme of your home.

One of the most recent developments in these fabricated shingles is the Salem style, in which has been faithfully reproduced the lovely textured surface of old wood shingles weathered by time and exposure.

Other styles which have found wide acceptance because they are particularly well adapted to the more modest purse are the Dutch Lap and Hexagonal shingles. The former retains the characteristic horizontal and vertical lines of the American method, while the latter is an adaptation of shingles used on old French farmhouses. The handsome mottled colors in which both styles are available make it possible to have roofs of lasting beauty at surprisingly low cost.

The table opposite may assist you in the selection of a suitable style and color. For additional assistance, the best advice to follow is that of your architect or building material dealer.



EVERY ROOF NEEDS PROTECTION AT THESE POINTS—When applying a roof, the careful contractor checks all the points indicated on this drawing, in order to assure protection against leaks. When you are re-roofing, it is also advisable to have the gutters and downspouts examined at the same time.





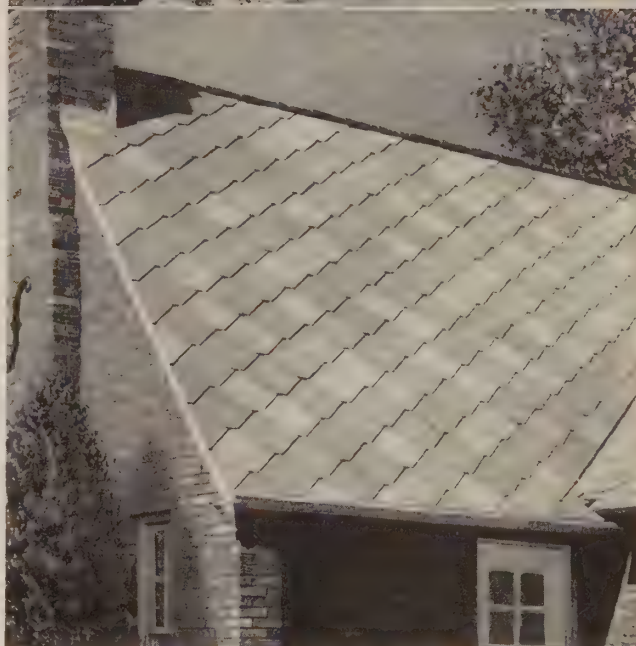
COLONIAL (Dutch, Cape Cod, American) — Salem Shingles in a blend or in solid Gray or solid Black. Dutch Lap or Hexagonal Shingles in Green, Blue-Black or Red.

ENGLISH COTTAGE and TUDOR—Salem Shingles in a warm color. Dutch Lap or Hexagonal styles in Red or Blue-Black.

GEORGIAN—Salem Shingles in Gray or Black. Dutch Lap or Hexagonal styles in Blue-Black.

SPANISH—Salem Shingles in Red and Brown.

MODERN—Built-up Roofing.



Here are three homes of widely varied character, each protected with a different style of asbestos shingle. At the top is a home with a roof of Dutch Lap Asbestos Shingles, noted for their economy. Directly below it is a home with an Hexagonal Method Asbestos Shingle roof, an exceedingly popular style in many communities. At the left is a rambling, modern Colonial home for which the owner felt the Salem Shingle was particularly suitable.



a guide

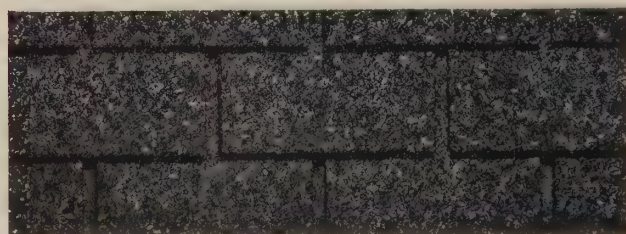
FOR THE PURCHASER OF ASPHALT SHINGLES



IN ANSWER to the need for an inexpensive roof that would combine the desirable advantages of fire resistance and ability to withstand years of service, in addition to attractive appearance, the building materials industry developed the asphalt shingle. Although it cannot boast all the outstanding qualities of asbestos shingles, this rugged, colorful shingle admirably fills the requirements of those who want protection against fire and weather at a minimum cost.

The secret of the resistance which these shingles possess, lies in two materials, asphalt and mineral surfacing—the asphalt for waterproofing and the mineral for fire-resistance and additional weather protection. The diagram at the top of the page illustrates the various elements which enter into the manufacture of ordinary asphalt shingles. First is the felt base. This felt is completely saturated with a special type of asphalt which contains the vital waterproofing ingredient. This ingredient, however, must have protection against the drying-out action of the sun. To provide this protection, the shingle is coated with a tougher type of asphalt and then covered with fine granules of colorful, fire-resistant mineral, rolled into the surface.

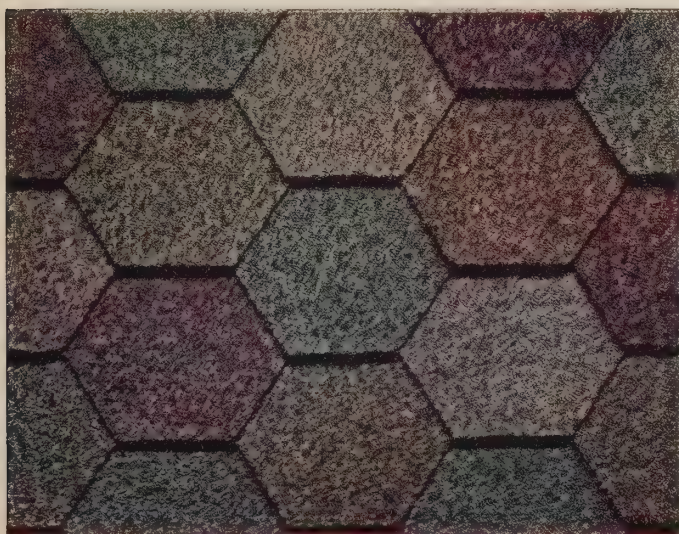
Of special interest to those who are considering roofing or re-roofing, is the new Double-Coated Thick-Butt Asphalt Shingle. This shingle is made exactly as described above, except that the portion to be exposed to the weather is given a *second* coating of asphalt and a *second* coating of mineral. The most remarkable feature of this shingle is that it costs no more than single-coated shingles of equal weight! Thus it becomes the outstanding "buy" on the market today.





Asphalt Shingles are made in a wide variety of styles and weights. Some styles provide only a single thickness of shingle when applied except for a narrow weather-lap under adjacent shingles. Others provide two thicknesses over the entire roof area. Still others, known as *double coverage shingles*, provide *three* thicknesses. It will pay you to ask your contractor to show you the *Double-Coated, Double-Coverage* style, for it offers exceptionally fine value.

One other important ingredient goes into the manufacture of asphalt shingles. That ingredient is the combined integrity of the maker and the contractor. To permit a traveling contractor to apply a shingle which does not bear the name of a reputable manufacturer, is to run the risk of grave disappointment. Your best assurance of a satisfactory roofing job is to consult an established local dealer who handles shingles made only by a manufacturer who will stand behind his product.





HOW TO PROTECT THE WALLS of their home from the devastating attacks of the weather, without expensive maintenance, has always been a problem of the family which owned a frame house. One would hardly suspect the beautifully textured shingles shown at the left to be fireproof and free from the need for preservative painting—yet they are, for they are made of asbestos fibres and portland cement. (Shake-Textured Asbestos Siding Shingles, made by Johns-Manville.)

THE *Charm* OF A HOME DEPENDS LARGELY ON ITS SIDING

NO FINER COMPLIMENT can be paid to a home than to call it charming. Just as charm in a person is the outward expression of fine traits such as sincerity and grace, so charm in a home is nothing more than the expression of good taste in the design of its component parts and surroundings.

Of all the elements that enter into the outside appearance of a home, however, none is of greater importance than the siding. There are three commonly used types of siding material—wood, masonry (stone, stucco, brick), and now the durable *asbestos* siding. These pages are confined to the discussion of the third type, while masonry construction is described on page 18.

When asbestos shingles and clapboards for siding use were introduced to the American public a few short years ago, they met with instant approval. Here was authentic design, duplicating the effect of fine wood shingles, in a material that would not burn and would not rot.

Here, these home owners felt, was the answer to what they had been looking for—a material that would give the effects they preferred, with the added advantages of fire protection and durability. These new shingles, when applied, bring to the home all the charm and variety found in textured wood shingles. The clapboards, too, are pleasingly textured.

Some of the asbestos siding shingles give the effect of old, heavy-butted, hand split shakes. These are known as Shake-Textured shingles and are tapered to a thickness of approximately 5/16" at the base. Other styles are uniform in thickness (approximately 3/16") and closely resemble sawed wood shingles in texture. They are the Cedargrain style.

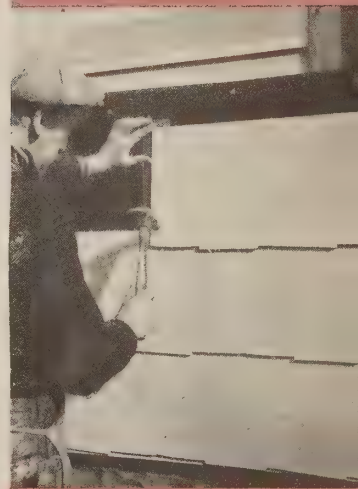
A choice between shingles with staggered lines or wavy lines affords the opportunity to obtain distinctive, interesting shadow effects. Although made in large pieces to facilitate



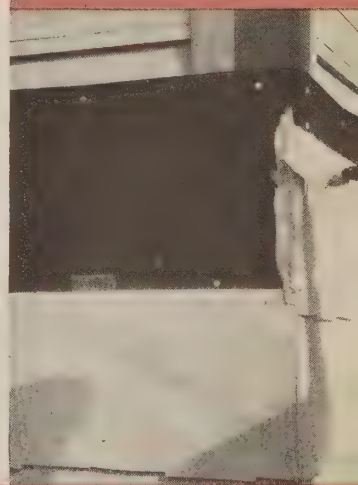
1.



2.



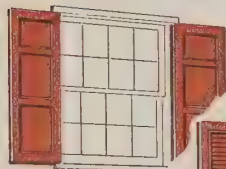
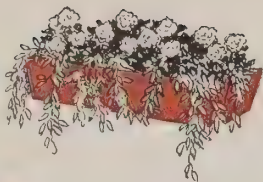
3.



When applied on a new home, asbestos siding shingles are installed as easily as ordinary siding materials. Even re-siding over old shingles or clapboards presents no problem. By filling in the recessed spaces below the butts with wood strips, or by first applying one of the semi-rigid sheathing boards now available, the contractor provides an even, smooth surface over which to nail the shingles.

1. Nailing on the waterproof felt.
2. Nailing the shingles in place. Note felt "backer" strips for additional weather protection at joints.
3. "Buttering" the corners with a plastic, weatherproof putty.

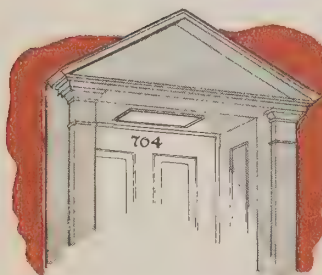
Window boxes add charm and color to any home.



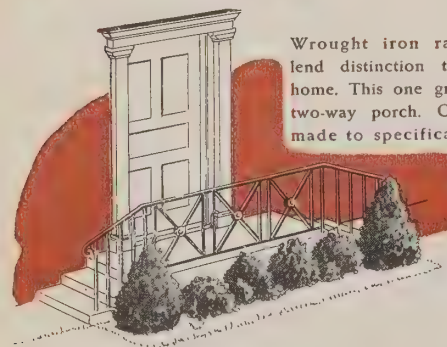
Above: Shutters may be paneled (illustrated) or of the slat or batten types.



Below: Shutters add to apparent width of doorways.



Recessed entrance light can be wired to turn on automatically as guests step on mat before door. Another suggestion: place illuminated number over doorway.



Wrought iron railings lend distinction to the home. This one graces a two-way porch. Can be made to specifications.



What garden is complete without a pergola and bird bath? Both are available from most building materials dealers.

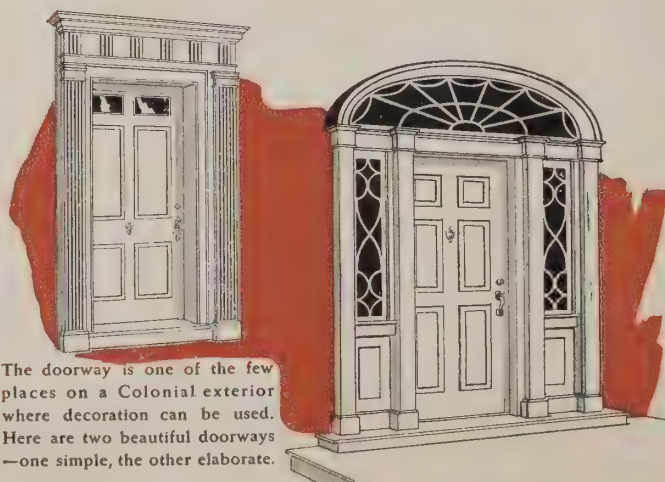
economical application, these shingles appear to be individual shingles laid in random widths. The photographs on the preceding page show how they are applied over old walls when a home is being modernized.

Both the asbestos shingles and the asbestos clapboards can be applied over old siding at a cost but little higher than a good two-coat paint job. In color, the shingles are oyster white, blended gray, mottled gray, and special mottled gray; the clapboards are white. Dirt, dust and ordinary stains which commonly appear on exterior wall surfaces can be easily and economically removed with J-M Asbestos Siding Shingle Cleaner.

The many advantages of asbestos siding have proved a blessing to many landlords, for these materials not only improve the rentability of property, but have actually brought increased returns in the form of better rental prices, while reducing the budget ordinarily put aside for periodic maintenance.

In connection with this subject, you may find that some of the suggestions pictured in the drawings on this page will enable you to add some element now missing from the appearance of your home. When you build, your architect will be of inestimable aid in advising you. If you are considering remodeling or improving your present home, an architect again will be a source of practical guidance.

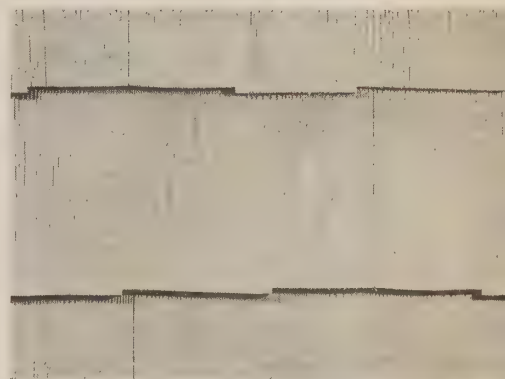
When selecting a trim color it is advisable to use a tone which will bring out the full beauty of the siding shingles or clapboards. A particularly pleasing choice is a warm gray of a tone slightly darker than that of the siding.



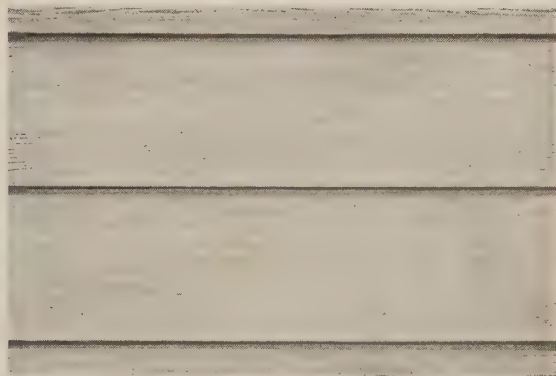
The doorway is one of the few places on a Colonial exterior where decoration can be used. Here are two beautiful doorways—one simple, the other elaborate.



For delicate texture, it would be hard to surpass these Cedargrain Texture Asbestos Siding Shingles. The wide 10½" exposure tends to make the home appear larger. This same shingle is also available with 6½" exposure. All Cedargrain Shingles are uniform in thickness.



Cedargrain Texture Shingles are also made with the interesting staggered butt lines shown in this illustration. This effect is an adaptation of the rugged character of the siding used in the early days of our country.



All the advantages of asbestos siding are also available in the form of clapboards, eight feet long, with a finely textured surface.

RECOMMENDATIONS FOR REINFORCED

EXTERIOR WALLS •

• INTERIOR WALLS

IF YOU ARE PLANNING to use brick or stone on the exterior of your home, you will be interested in knowing about the modern type of construction which provides a reinforced wall, thoroughly protected against penetration of air and moisture—and at the same time is safe from the fire hazard that results from ordinary methods.

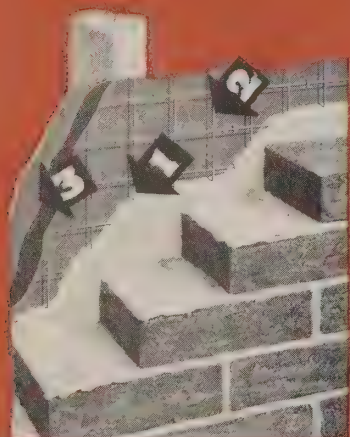
When building brick or stone veneer walls, the workman lays one course of brick or stone upon another, leaving a 1" space between the brick or stone and the sheathing. This space becomes a dangerous flue in case of interior wall fires. This type of construction also frequently results in vertical mortar joints that are only partially filled, allowing air and moisture to penetrate through the wall. Furthermore, the wall is "free standing", merely fastened to the studs at intervals by metal ties. It is not an integral part of the structure.

Contrast this ordinary method of veneer construction with the Johns-Manville method, which employs J-M Steeltex for Brick or Stone Veneer. This form of Steeltex is a heavy wire mesh, with a double-ply mastic-filled waterproof backing. After the Steeltex

has been securely nailed to the framework, the mason lays the brick or stone exactly as before, except that he fills the 1" hollow space with mortar in which the steel wires become embedded. All vertical joints become filled automatically. The result is a one-piece slab of brick, mortar and steel that forms an integral part of the house structure and that eliminates the need for any other sheathing. It is far more resistant to the passage of air and moisture than ordinary brick construction, and it leaves no fire hazard.

In the same manner, J-M Steeltex for Stucco provides stronger reinforced stucco walls. Because it has a double-ply mastic-filled waterproof backing, it prevents moisture from reaching the framework where it might cause swelling of the wood, with possible fracture of the stucco. Stucco walls reinforced with Steeltex have actually withstood hurricanes and earthquakes in areas where surrounding buildings were demolished.

As the illustration directly below indicates, Steeltex can be used to "overcoat" weatherworn exteriors just as readily as it can be used on buildings under construction.



This is a cut-away diagram of a brick veneer wall laid up on a base of Steeltex for Brick or Stone Veneer. Note that the wall becomes monolithic, from the backing to the surface. (1) shows the thick mortar slab; (2) the steel mesh reinforcement; (3) the heavy, waterproof backing.



In new construction, Steeltex is applied direct to the studs, replacing the usual wood sheathing. The mortar is automatically forced behind and around the wire mesh and up against the waterproof backing, thus providing maximum reinforcing action. The backing also eliminates unnecessary waste of material.



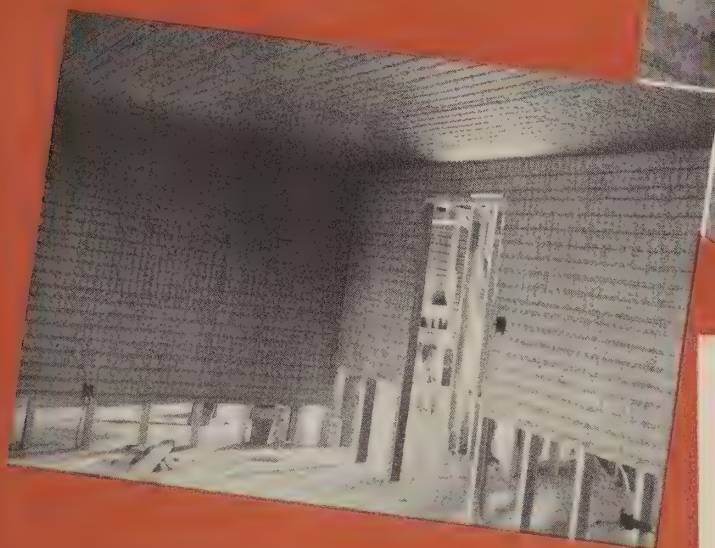
When wood clapboards are desired, Johns-Manville recommends a sheathing of Weatherite Insulating Board, furnished coated on all sides and edges with a high-grade black asphalt for resistance to moisture. This sheathing, 25/32" thick, affords a high degree of insulation, and excels wood sheathing in bracing strength.



The method of "overcoating" an old exterior with stucco reinforced with Steeltex is shown here. After the Steeltex has been fastened to the building with furring nails, the stucco is applied in exactly the same manner as in new construction.

CONSTRUCTION

CEILINGS •



(Upper right) Under the sweep of the plasterer's trowel, the first or scratch coat of interior plaster passes through the heavy steel wire mesh of the Steeltex and forms a bond with the fibrous backing. When nailed to the studs or joists, the Steeltex becomes a rigid, strain-resisting plaster base. (Above) Room partially lined with Steeltex for Plaster.



RECOMMENDATIONS FOR PLASTER WALLS AND CEILINGS

How to cover the walls and ceiling surfaces of a room with a hard, smooth, sanitary and easily decorated finish was one of the many problems the early home builders encountered. When they built with stone they found that lime and sand were excellent for this purpose and adhered fairly well. When wood framing was used a hollow space was left between the inner and outer walls. In the absence of a material to which the plaster would adhere, strips of wood were nailed to the uprights with small openings between them. The wet plaster would pass through the openings and form a knob or "key" when dried out, fastened the finished slab to the wall.

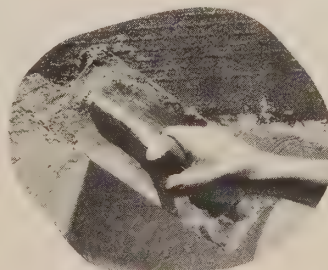
Although this furnished a base for the plaster it did not overcome the cracking which developed when the building settled or the framing began to shrink. This condition led to experiments with other types of laths, but none overcame the condition completely.

About 16 years ago, however, certain engineers approached the problem by attempting to employ the same reinforcing principle used

in concrete construction—in other words, to find a way to embed a steel wire reinforcing in the wet plaster. The result of their research is a new type of plaster base known as Johns-Manville Steeltex. That it has been highly successful is evident from the fact that it is today being specified by architects and building engineers for a wide variety of construction ranging from modest five room homes to monumental buildings.

Johns-Manville Steeltex differs from most plaster bases in that it does not depend on a "key" formed by the wet mortar in back of the lath to hold the finished plaster slab in place. Instead, Steeltex provides a steel wire mesh that is completely embedded in the mortar, not unlike the manner in which glass is reinforced with wire. Tests show that a wall built in this way is far stronger. Steeltex is economical and easy to apply, and requires less plaster than many key-type laths.

The benefits from the use of Steeltex for Plaster are many. Discoloration caused by lath or stud marks is eliminated. Plaster cracking is reduced to a minimum, and falling plaster need no longer be considered a problem. As a result, maintenance expense is considerably lightened, and in addition, the home becomes more valuable if ever placed on the market for sale or rent.

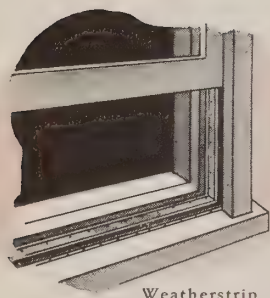


In moderately priced homes, a fibre board plaster base, such as J-M Insulating Lath is often used. It provides a rigid, unbroken surface for plastering, and insulates against heat and cold.

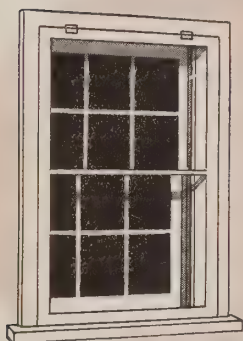
the STORY OF HOME INSULATION

AND HOW IT HAS CREATED NEW STANDARDS OF

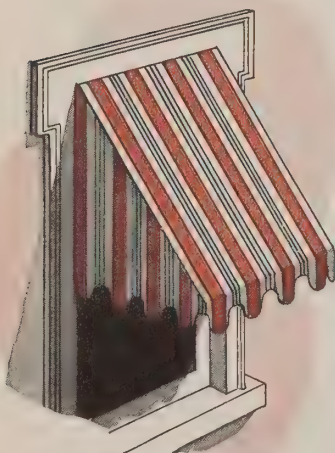
HOME COMFORT



Weatherstrip all windows and doors



Install storm windows and doors in the winter



Shade windows with awnings in summer

IN RECENT YEARS you have probably heard a great deal about the subject of insulation, for hardly anything having to do with home building or modernization has attracted wider interest. Most people, however, have only a vague idea of what insulation is or what it will do.

When we speak of home insulation just what do we mean? Simply this—a material that will retard the flow of heat through walls and roof to the outdoors in winter and that will help prevent the penetration of heat in summer.

There is nothing new or complicated about the subject. Ever since there have been houses an effort has been made to seal the walls and roof against the passage of heat. A number of different materials have been tried with varying degrees of effectiveness. In some of the houses of our grandparents' days sawdust was used as a lining between the inner and outer walls for the same purpose. Today engineers have found that a material known as "rock wool" is one of the most efficient materials commercially available to meet the many requirements of an insulation for houses.

Rock wool is an unusually interesting material. It comes from rock, and as its name implies it looks like wool. It is a soft, fluffy, clean substance that is light in weight, that won't burn, won't rot or decompose. For these reasons, coupled with its excellent insulating qualities it is ideal for use in the outer walls and attic spaces of a home, keeping rooms up to 15° cooler in hottest summer weather, and warmer in winter while saving up to 30% on fuel bills.

To obtain this amazing material, stone is melted under terrific heat until it flows like water. Then, as this molten rock runs through an outlet into a jet of live steam, a startling transformation occurs. What was once liquid rock now becomes fibres which drift down as lightly as snow-flakes — a permanent, fireproof, heat-resistant "wool."

What makes rock wool such an excellent barrier to the passage of heat? This is not hard to explain. A handful of it contains millions of tiny trapped air cells through which heat cannot readily pass. The best way we know of telling you how effective it is, is to tell you that, by actual test, a full stud thickness ($3\frac{5}{8}$ ") of rock wool will resist the flow of heat as effectively as eleven feet of solid stone!

Now it is obvious that in order to thoroughly insulate a house with rock wool we must completely surround the occupied part with a thick layer of the material—leaving no openings except for the doors and windows. This is not such a difficult problem as you might think. For houses that are already built, a simple, practical method has been perfected whereby the rock wool is blown through a hose into the hollow outer walls until they are tightly packed. The space under the attic

Above are shown three simple aids to adequate insulation. These will help make your home more comfortable winter and summer.

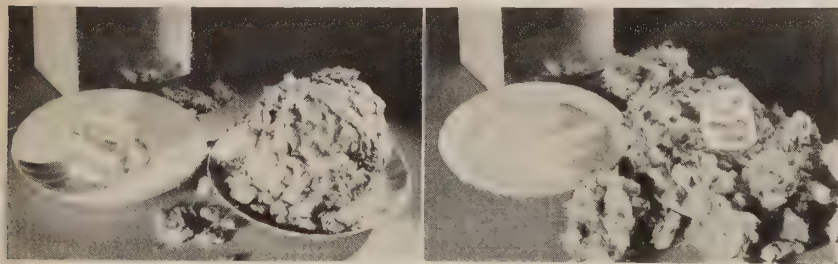
floor is "blown" in the same manner. This operation is not expensive and it causes no damage to the house. The best proof of its effectiveness is the fact that today over 100,000 homes have been insulated by this scientific method.

New houses should be insulated during construction, when the spaces to be insulated are accessible. This permits the use of large pads or "batts" of rock wool, factory-made to correct thickness and density for application between the framing members of the outside walls and of either the attic floor or roof.

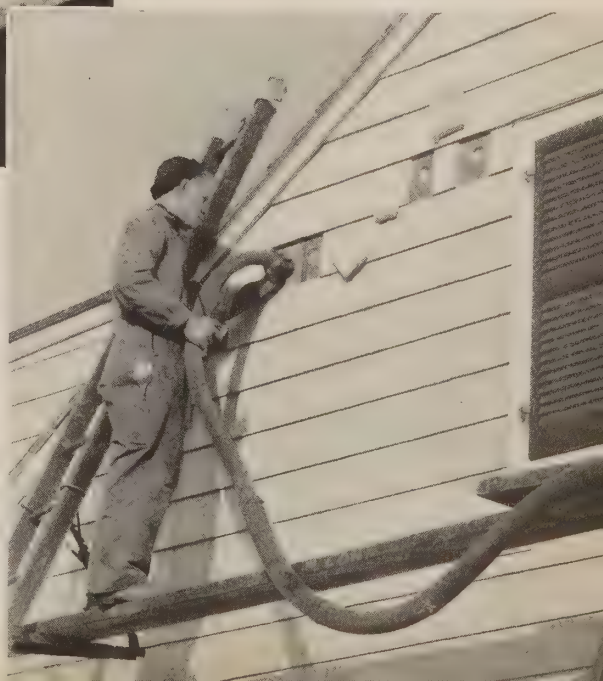
The results are amazing. In winter the house becomes warmer and easier to heat. And in hottest summer weather, rooms are made cooler and more comfortable. And if you are considering air conditioning for your new home, you will find that rock wool home insulation is of the greatest importance in order to obtain the fullest benefits at lowest cost.



Installation of rock wool is by the two methods shown here. Above and at left, the workmen are installing the batts. Below, the approved contractor's mechanic is "blowing" the wool into the exterior walls of an existing home. Portions of shingles are neatly replaced as each section is completed.



Here's an interesting experiment with rock wool. Take two pieces of ice of equal size. Put one in a saucer; wrap the other in rock wool. When the unprotected piece of ice has melted, unwrap the other. You will be astonished at how little it has melted. No wonder homes become so much cooler in summer and so much easier to heat in winter, when insulated with this remarkable material.



THE HOME OF TOMORROW

is a **TRIPLE INSULATED*** **HOUSE**



How TO PROVIDE a method of protecting the moderately-priced home from fire and the elements has received the earnest attention of all building materials manufacturers. Recognizing the fact that only *tested* materials could safely be recommended to prospective home builders, Johns-Manville turned the task of investigation and development over to its research laboratories.

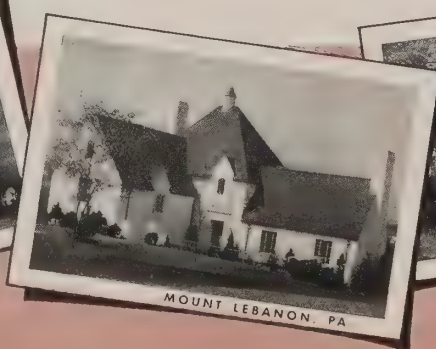
The goal set before these engineers was the development of a completed wall and roof structure, at a reasonable price, which would successfully resist the ravages of time and weather; would protect against destruction by fire; and would stand as a barrier to the passage of heat and cold . . . without sacrificing architectural beauty on the outside or decorative possibilities within. In other words, they sought a method of construction that protected or "insulated" in three ways, providing a Triple Insulated House.

On the preceding pages you have seen the component parts of the Triple Insulated House—the asbestos roofing shingles, the asbestos siding, the Steeltex plaster base, and the Ful-Thick Rock Wool Home Insulation. Considered separately, each material is a valuable contribution to better home building. When combined, they form one of the most outstanding advances in home construction in recent years.

Leading builders throughout the country quickly recognized the greater values which Triple Insulated construction offered the home owner. In order to introduce these values in their communities, they built demonstration homes, ranging in price from \$4,000 to \$25,000. Between January, 1936 and October, 1938 more than two hundred of these homes were opened to the public and attracted more than 1,250,000 visitors.

Perhaps you already have visited a Triple Insulated Demonstration House in your neighborhood. If not, be sure to go through one if you have the opportunity. Every Triple Insulated House is identified with a seal furnished by Johns-Manville. Look for it. It is your assurance of a genuine Triple Insulated House.

*A Triple Insulated House is one that has been "insulated" or protected against fire, weather and wear with these three materials: 1. Asbestos Shingles on the roof and Asbestos Siding to provide a fireproof, durable shell. 2. Ful-Thick Rock Wool Insulation in both walls and attic to protect against winter cold and summer heat, and give added protection against fire. 3. Steeltex Plaster Base to retard the spread of inside fires and reduce plaster upkeep expense.





"X-ray" model of a Triple Insulated House shows how a home can be protected against fire, weather and wear.



Even if you are not planning to build, you can "Triple-Insulate" your present home with a new roof and exterior walls of asbestos shingles, and with rock wool insulation in your outside walls and attic floor. And—if you add a new room or a new wing, you can have your plaster reinforced with Steeltex plaster base.

THE \$2000 TO \$4000 HOUSE CAN BE AN "ALL-WEATHER COMFORT" HOME

To make your new home an "All-Weather Comfort Home" it will cost you little, if any, more than ordinary construction, yet you will enjoy many of the benefits of Triple Insulation. An "All-Weather Comfort Home" has a roof of either J-M Asbestos or J-M Double Coated Thick-Butt Asphalt Shingles. The outside walls are J-M Asbestos Siding Shingles or Clapboards. Year 'round comfort is provided by using Ful-Thik Rock Wool Home Insulation in the attic and Semi-Thik Home Insulation in the exterior walls.

At the top of this page is shown a typical Colonial home. The photograph below it shows a model of this home, with portions removed in order to reveal all the J-M products used in building a Triple Insulated House.

FIREPROOF ROOF AND WALLS

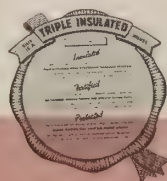
The J-M shingles on the roof and exterior walls are fireproof and durable, because they are made of asbestos and cement. (For homes with brick veneer, stone veneer or stucco walls, refer to page 18).

COMPLETE INSULATION

The Johns-Manville Rock Wool Batts used in the walls and attic will make the home up to 15 degrees cooler in hottest summer weather, and will make it easier to heat on less fuel in winter.

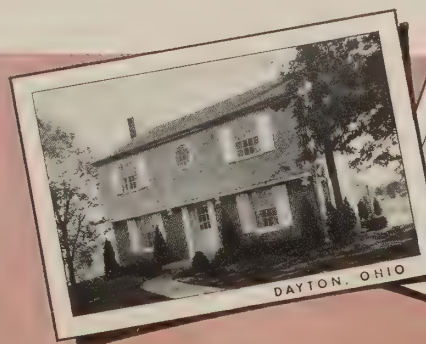
REINFORCED PLASTER

The J-M Steeltex plaster base eliminates the danger of unsightly lath marks, and reduces the hazard of cracked plaster to a minimum.



This Seal identifies a Triple Insulated House

If you are considering buying a new home, look for one where this seal is displayed. It is your assurance of a genuine Triple Insulated House. And if you are planning to BUILD a Triple Insulated Home, ask your builder to make application for this seal, so that you will be able to point to the extra quality that has been built into the house.



DAYTON, OHIO



PEARL RIVER

IMPORTANT POINTS OF GOOD CONSTRUCTION

Whether you plan to build, or to buy a ready-built house, you will want to be familiar with the names and functions of the various structural parts of the house. This "skeleton" house headlights some of the more important points where good construction is essential. It indicates the details to be checked as to the foundation and framework to safeguard

your investment. Most of the parts in the basic structure are hidden and therefore should be given careful consideration by the owner, architect and builder. In many respects they may represent the difference between a sound, substantial, maintenance-free structure and one which will be a constant source of annoyance and expense.

Studs and joists are the members that form the skeleton of the house. Studs are the upright members which form the walls and partitions and to which wall surfaces are applied. They should be doubled along the sides of doors and windows and tripled at all corners in the exterior walls. Joists are the timbers which support the floors. They should be doubled under partitions and around openings, such as stairways.

Collar beams for bracing should be placed above the middle of the attic height and run across from rafter to rafter. When spaced on every second rafter they give added stiffness under the ridge.

The sub-floor should be laid diagonally, and adequately nailed to provide strength and rigidity to the house and offer a good, solid foundation for the finished floors. Between the finished floor and sub-floor, deadening felt is a precaution against creaking and noise transmission.

Roofing boards are nailed at right angles to the rafters and should fit tightly to provide a flush surface for applying roofing material. The best type is tongued-and-grooved, covered with waterproof paper or felt to insure protection.

Rafters, nailed securely to the ridge, plate and attic floor joists support the roof. They are usually 2" x 8" or 2" x 10", spaced 16 inches apart, but like joists, their size and spacing are determined by the load they must carry.

Headers run across the top and bottom of windows and across the top of doors. Under windows, headers should be double and laid flat, while across the top of windows and doors they must be laid on edge to assure rigidity and support.

Sheathing is nailed directly to the studs on the exterior to form an unbroken surface for applying the outside finish. There are three types of sheathing used in good construction—Insulating Board, shiplap or tongued-and-grooved wood sheathing laid diagonally, or Steeltex, a network of heavily galvanized, copper-bearing steel wires with a waterproofed backing for reinforcing stucco or brick veneer walls. Where wood sheathing is used, building paper should be applied for weather protection.

In addition to placing the double headers on edge over openings, trussing is necessary above large openings (7 feet or more) particularly in bearing partitions and outside walls. This will help to reduce the possibility of plaster cracking, windows binding and floors settling.

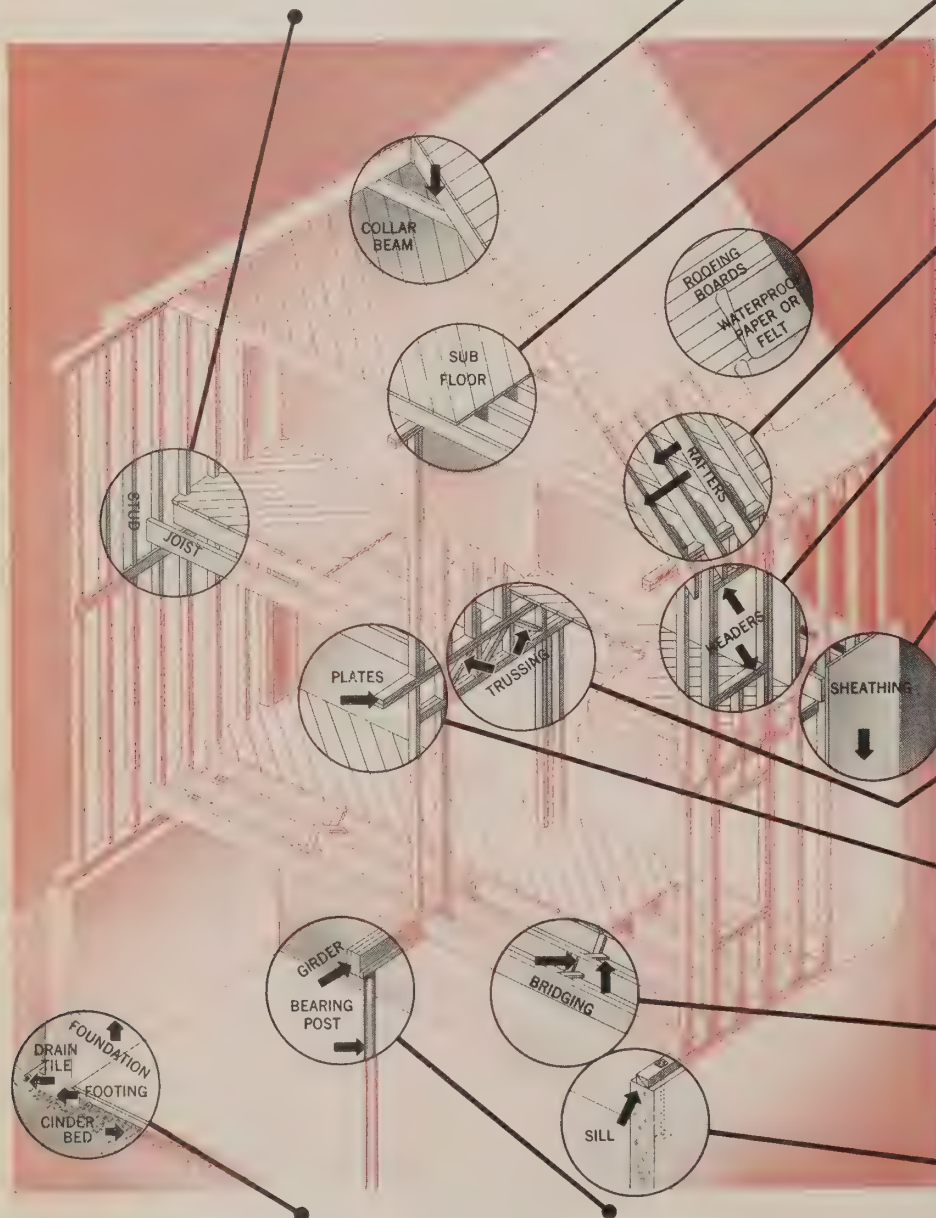
Plates join the studs together to form partitions and are placed both at floors and ceilings. Top or ceiling plates should be doubled and lapped at the corners.

Bridging between joists is extremely important before the sub-floor is laid. A straight row of cross-bridging should be installed between joists in the center of spans 16' or less. For greater spans, two rows are necessary, equally spaced in the span. A series of 'X's are made by securely double-nailing strips of wood (about 2" x 3") to the sides of the joists to form the bridging.

This part of the framing is known as the sill and serves to fasten the super-structure of the house to the foundation. The sill should be bolted down as indicated and bedded in mortar with end joints only at corners or over solid masonry.

★

Because of its general acceptance, Balloon Frame construction is shown here. Equally acceptable are Platform Frame or Modern Brace Frame construction.



Foundation walls support most of the weight of the house, and should rest on broad, flat footings having sharp corners. They should also be waterproofed with cement-plaster and damp-proof coating. Drain tile connected to a sewer or dry well will provide good drainage. A bed of well-tamped cinders should be laid as a base for the concrete floor, which can be reinforced with steel wire mesh, if desirable.

Girders (steel I beams or large timbers) should be placed under main divisions or bearing partitions to support both the weight of partitions and part of the weight of the entire house.

Bearing posts support the girders and should be set on individual footings. Either lally columns (steel tubing, reinforced and filled with cement) or masonry piers are recommended.

The Guildway Small Home Club

PRESENTS

Fourteen Charming Small Homes



Guildway House No. 1
★Approx. \$37.70 per month...25 years to pay
Rarely are the quaintness and charm of true Cape Cod architecture so harmoniously combined in a small house suited to a narrow plot. A stairway makes attic space available for future use.

Architect, ROYAL BARRY WILLS



These homes, designed by nationally known architects, together with other attractive homes designed by local architects, are available through Johns-Manville Dealers

The fourteen small homes shown in this section of The Home Idea Book have been designed by outstanding architects to meet the needs and preferences of home owners in all sections of the country. Through Johns-Manville Engineering Standards they offer increased living comfort, minimized upkeep expense, and greater protection from fire. And under the Guildway Service, the home of your choice is available to you without worry or delay.

Imagine, for instance, that you have selected the home on this page. You get in touch with your Johns-Manville Dealer. He will be able to tell you at once what the monthly cost will be under the FHA plan. Thus, without delay, you receive the answer to your most important question. If you wish to build the house, he can take care of every detail, as a part of the Guildway Service, described on page 54 of this book. Only through him are the plans, specifications and bills of materials available.

You purchase your new home just as easily and conveniently as you would buy a new car . . . from one headquarters . . . in one transaction . . . on convenient monthly payments.

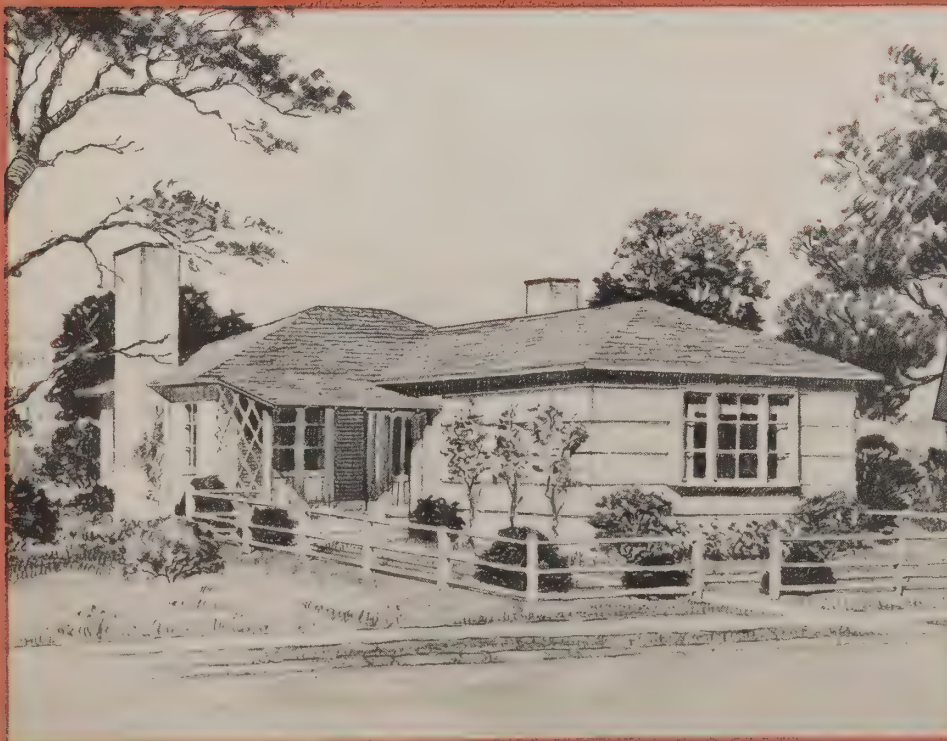
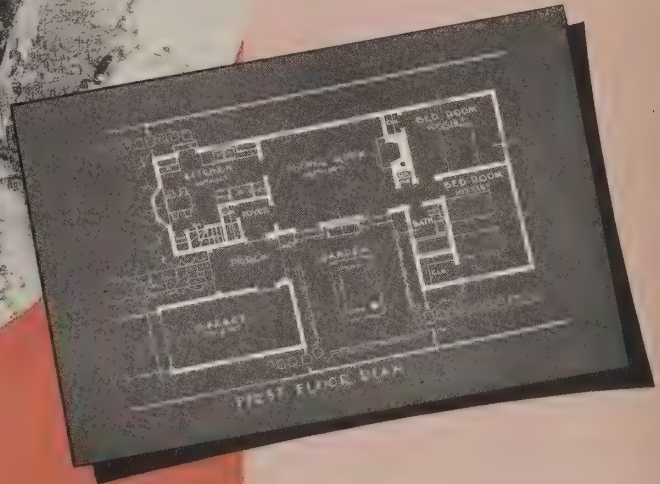
Never before has a nation-wide plan of this nature been offered to prospective home owners. After you have glanced through these pages, ask your Housing Guild Dealer to explain to you the many advantages of building one of these homes, or one designed by a local architect, under the convenient method offered by the Housing Guild. He will be glad to do this without obligating you in any way.

★Prices are approximations only, and will vary according to local conditions. They are for the house only (not land) and include payments on principal, interest, FHA insurance, fire insurance and estimated taxes. It is assumed that the cost of the land is equivalent to the FHA required down payment.

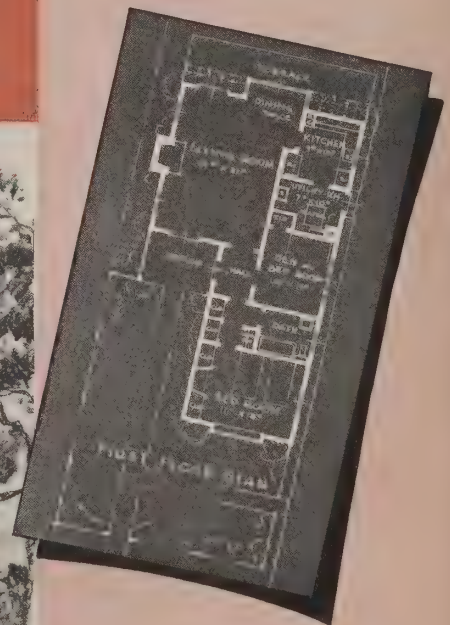


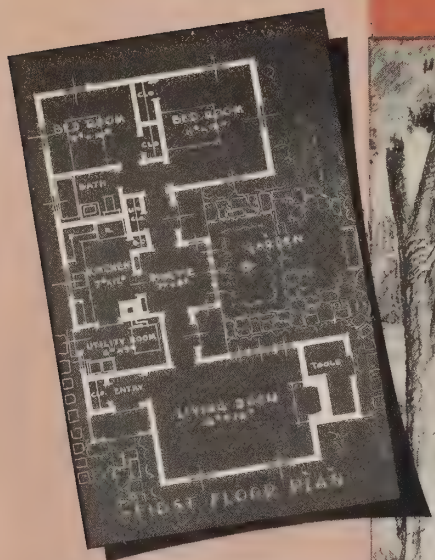
Guildway House No. 10
 ★Approximately \$40.92 per month . . . 25 years to pay
 Every feature of this cottage suggests sunny California. Designed around a spacious garden plot, and with a sheltered porch between the garage and the house itself, it well deserves to be called hospitable.

Architect,
 ALBERT E. OLSON



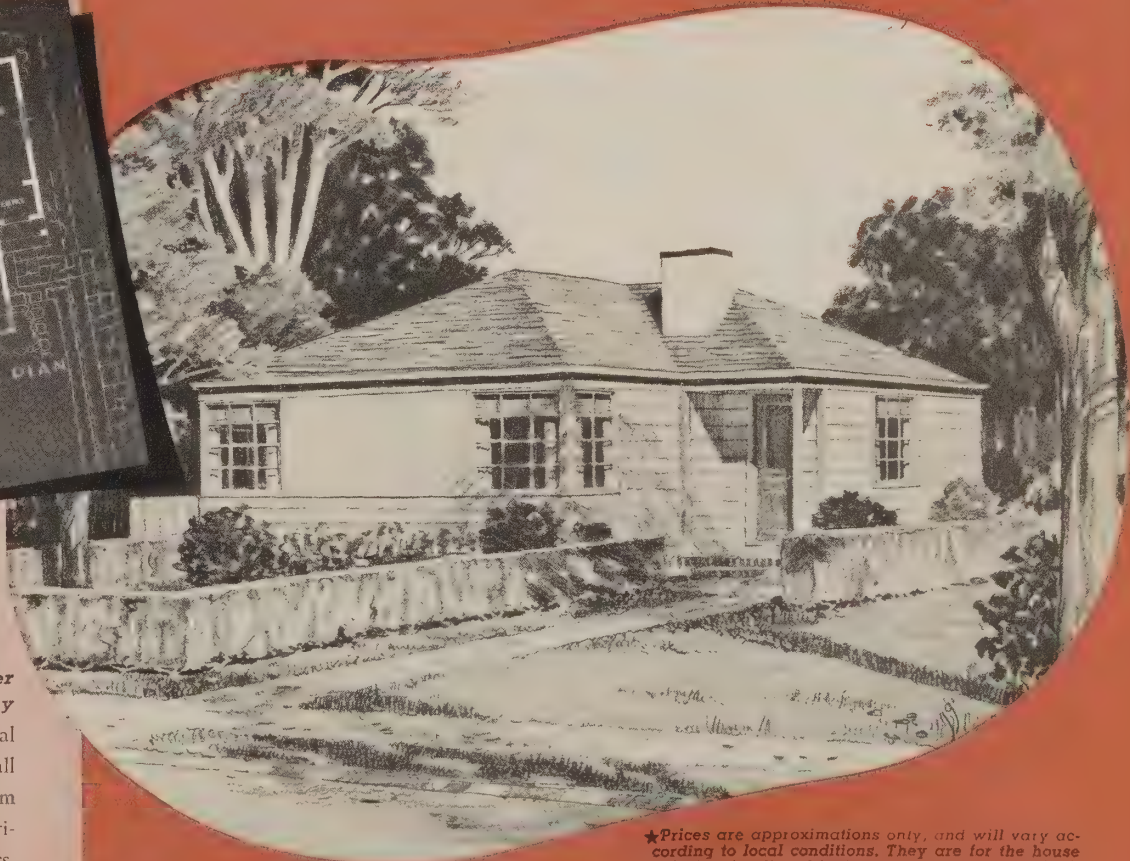
Guildway House No. 11
 ★Approximately \$41.72 per month . . . 25 years to pay
 Delicacy characterizes this California home, largely through lattice work, narrow bands set in the stucco, a low rail fence, and trellises flanking the dining alcove. Architect, H. ROY KELLEY





Guildway House No. 14
 ★Approximately \$42.51 per month . . . 25 years to pay
 A home for those who love gardens! Note the tool house. Note especially the way the dining room extends into the garden area, with windows on all three sides for maximum light and vista. The small view at the right shows the entrance as viewed from the street.

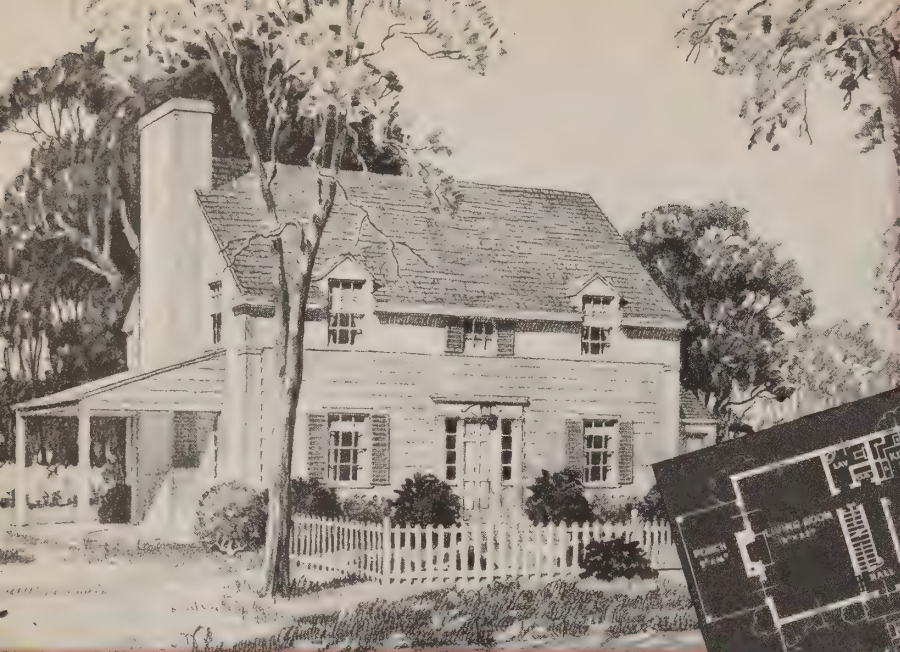
Architect, RANDOLPH EVANS



Guildway House No. 4
 ★Approximately \$32.09 per month . . . 25 years to pay
 To take advantage of natural light without breaking up the wall space too much, the bedroom windows of this delightful American cottage are set in the corners.

Architect, RANDOLPH EVANS

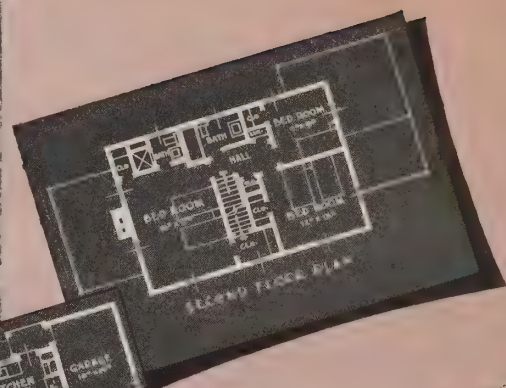
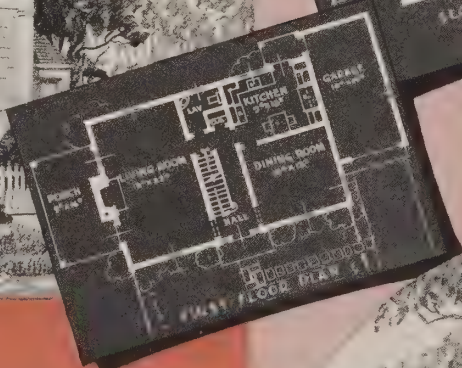
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Guildway House No. 8

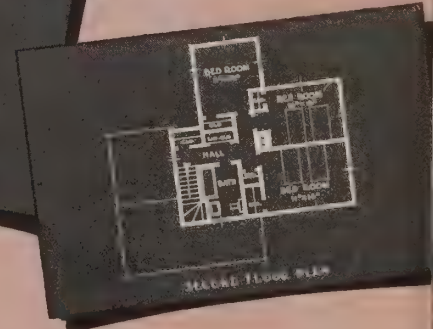
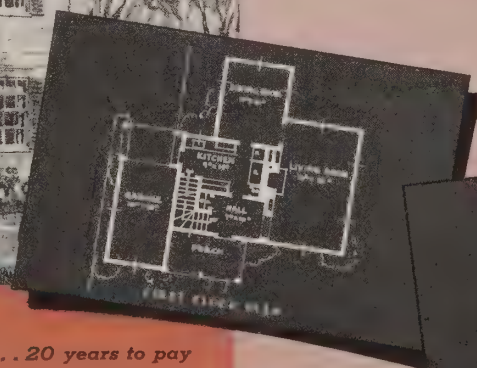
★Approximately \$71.59 per month . . . 20 years to pay

This straightforward New England Colonial home provides living comforts in abundance, such as ample closet space, efficient arrangement, attached garage, and three bedrooms. Probably most important is the provision of a master bathroom with shower stall, and a lavatory on the first floor. Architect, RANDOLPH EVANS



Guildway House No. 6 . . . ★Approx. \$72.55 per month . . . 20 years to pay

In the first-floor plan of this home, the kitchen forms the center around which all the rooms are grouped. Only a few steps are necessary to go from the kitchen to any other room—an unusually convenient arrangement. The garage, with the door at the rear, gives every appearance of being part of the living quarters. Architect, DWIGHT JAMES BAUM



Guildway House No. 2
★Approx. \$72.55 per month . . . 20 years to pay

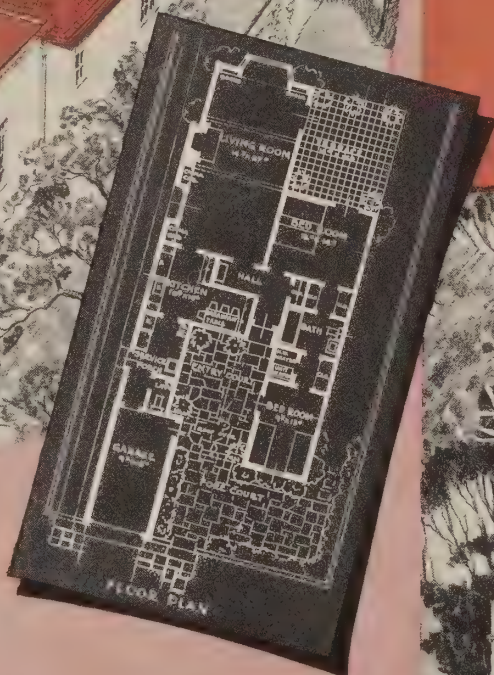
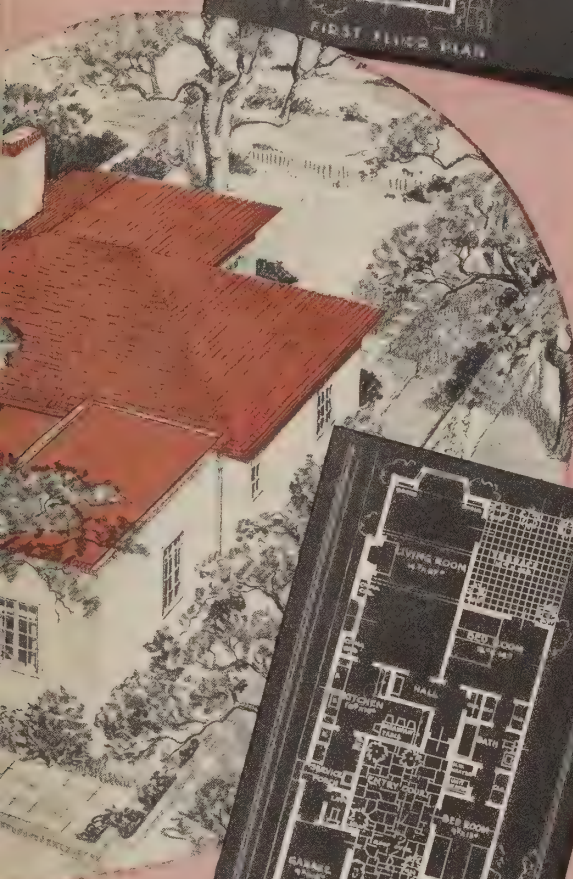
Privacy is the theme of this d home. It is exemplified by the br and by the manner in which the relation to the front entry. Arch



Guildway House No. 7 . . . ★Approx. \$52.69 per month . . . 20 years to pay

Of particular interest in this Classic Revival home is the placing of the dinette in relation to the living room, for it can be closed off with curtains or thrown open as part of the general entertainment space. The location of the bathroom makes it convenient for use as a lavatory.

Architect, MAXWELL A. NORCROSS



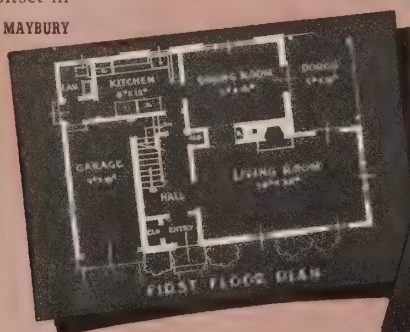
House No. 12
\$66.06 per month
20 years to pay
Pasadena type
all across the front,
living room is offset in
MARSTON and MAYBURY



Guildway House No. 3 . . . ★Approximately \$71.59 per month . . . 20 years to pay

The "four-square" central unit of this Regency home provides the maximum utilization of space so desirable in two-story construction. The rear porch and attached garage help make this home suitable for any climate.

Architect, R. A. GALLIMORE



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Guildway House No. 2

★Approximately \$40.12 per month . . . 25 years to pay

Compactly designed, this Dutch Colonial home very efficiently combines living and sleeping quarters on one floor without interference. The dining bay at the end of the living room adds to the livable space of the home and creates the effect of a separate room.

Architect, RANDOLPH EVANS

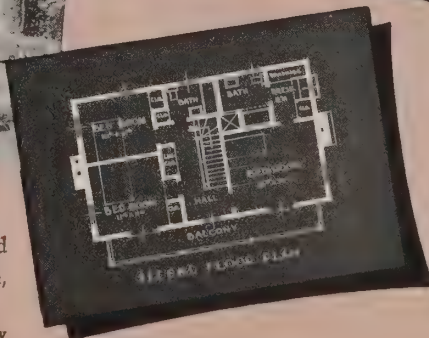


Guildway House No. 9

★Approximately \$89.47 per month . . . 20 years to pay

In this generously proportioned Monterey Colonial home, the designer has skilfully included many features of unusual interest, such as the relationship between dining room and kitchen, the large expanse of window area in the dining room, and the privacy of the study.

Architect, H. ROY KELLEY



Guildway House No. 13

*Approximately \$62.40 per month . . . 20 years to pay

Here the entire floor plan is centered around the foyer, from which but a few steps will take one into any room. The bay window in the rear bedroom provides an unusual amount of light and air, while the dining alcove becomes a part of the living room when occasion demands.

Architect,
ALBERT E. OLSON



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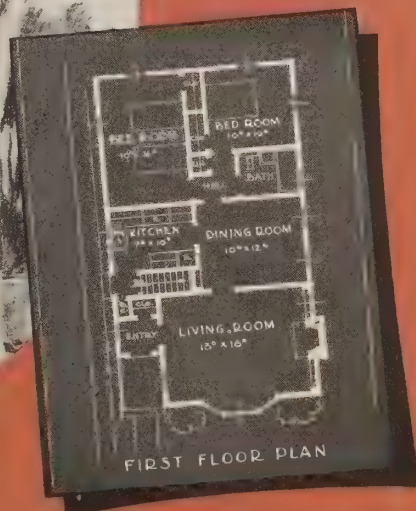


Guildway House No. 5

*Approximately \$48.68 per month . . . 20 years to pay

From southern Alabama and New Orleans comes the inspiration for this charming cottage. The interesting manner in which the roof area has been broken up gives the feeling of elaborateness, although the floor plan is in reality very simple.

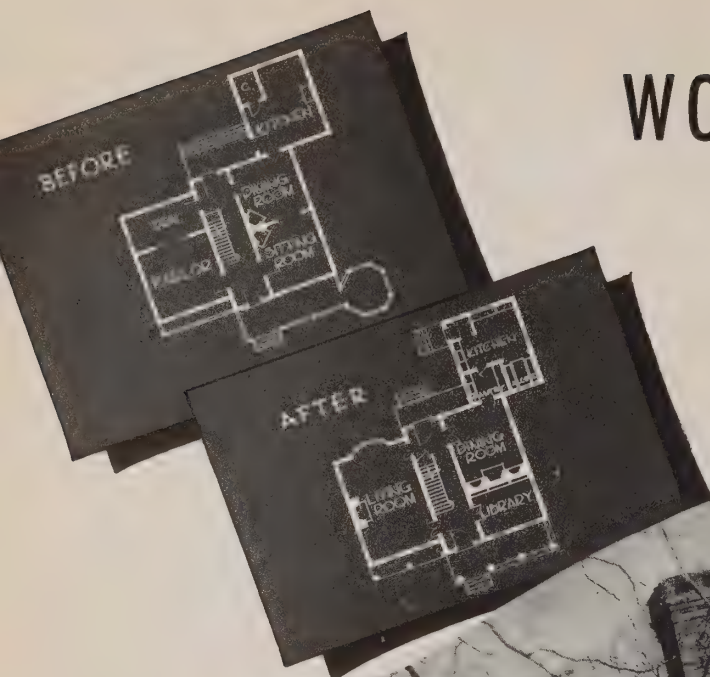
Architects,
MILLER, MARTIN and LEWIS



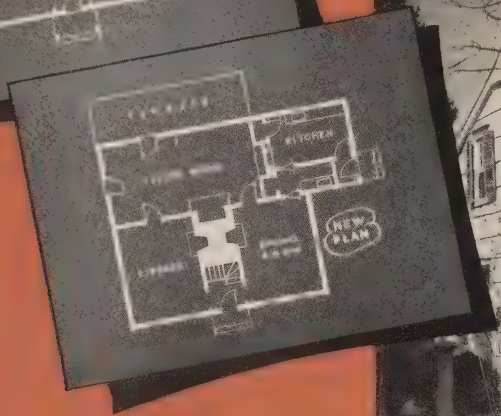
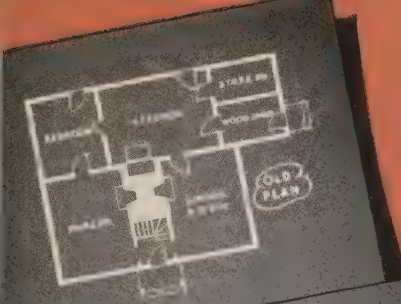
WORKING WONDERS

THROUGH

REMODELING



"In the 'Elegant 80's' the house at the right would have been in the height of fashion. Hardly a foot of its exterior escapes gimcrack embellishment. With the unnecessary ornamentation removed, the true proportions of the house can be revealed, as shown in the large drawing. It no longer looks stunted; the windows seem placed correctly; and it is easy to picture this house in the dignified proportions of southern plantation homes. Columns create a feeling of impressive scale and give the house a symmetry which it heretofore lacked, while the addition of a second floor bedroom makes possible a more spacious interior arrangement."



Left—"This home is typical of many a home today—in need of a general exterior 'going over', in addition to necessary changes in room arrangement. Of principal interest is the bright and fresh appearance given to the front by the removal of an outmoded porch and the substitution in its stead of an authentic Colonial doorway with louvered shutters and distinctive pediment—not to mention the lanterns on each side! The improvement of the floor plan will be apparent at once. Since there is no further need for a wood shed or downstairs bedroom, a spacious living room and efficient kitchen are made possible, while a terrace at the rear provides a living room outdoors."

"*L*IFTING THE FACE" of an outmoded house is a fascinating venture. The curious thing about it is that practically the worst-looking house has amazing possibilities for beauty. Many of the outmoded homes which dot our landscape are the work of well-meaning "experts" of the last century, who took existing authentic Colonial designs and piled them with "gingerbread", cupolas, bays and ornate porches. Modernizing today is little more than bringing to light the beauty which has been concealed behind an over-dressed exterior. It may mean ruthlessly ripping off a porch; courageously amputating a 3-foot width of overhanging eave, or deftly slicing off some ugly facial growth and grafting in its place some harmonizing feature.

In most cases it requires the experienced eye of an architect to evaluate the possibilities of any given problem house. But the uninitiated may at least learn what the architect's keen eye looks for. First there is the *mass* of the house, which is the proportion of height to length—the relative bulk of its various parts. Next there is the *line*, which is the gracefulness of its silhouette. Third, there is the *scale*—the relationship of details to the mass. Last, there is the *function*—the reason why each part should or should not be as it is or where it is.

As an illustration of what can be done with a variety of old-fashioned houses, Johns-Manville commissioned Mr. Lurelle Guild, nationally-known designer, to prepare the series of "Before and After" views shown on these pages. The comments are Mr. Guild's analyses of the ailments; the retouched "after" pictures show the cures he recommends.

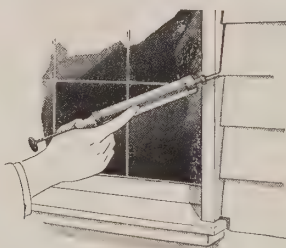
About this suggested transformation Mr. Guild says: "Very little has to be done to reveal the beauty of line and form hidden behind the ornate decoration which crops out at unexpected places on the home shown below. First of all, off comes the porch. On goes a new doorway. Off also comes the covered porch at the right, and the wing is extended to take in the area formerly included. Simplified dormers and a more substantial-looking chimney practically complete the job."



HELPFUL SUGGESTIONS FOR HOUSE AND YARD

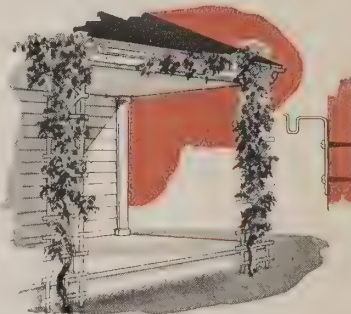


A lean-to on the back or side of the garage will provide handy storage for wheelbarrow, lawn mower, tools, etc. Doors should be double, if possible, to permit easy removal of large items. Be sure to provide windows or electric light.

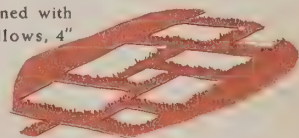


Caulk all openings around windows, doors, and chimneys with caulking putty, applied with knife or gun. Keeps out drafts, rain and dirt.

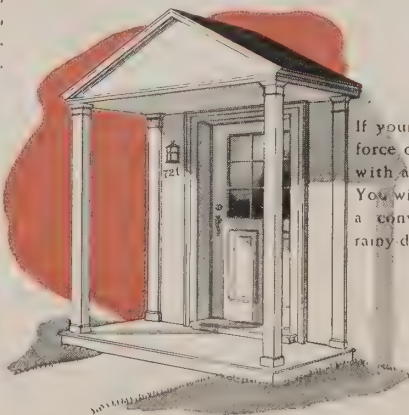
Hide porch columns with trellises. If vines are annuals, hang trellises on simple metal hangers that can be made from strips of copper (see sketch). Remove trellises in fall, store in cellar. Result—fewer paintings.



Flagstone makes charming walks. Similar effects can be obtained with concrete poured into hollows, 4" deep, neatly cut into lawn.



Here's a practical garden wall. Start 12" below ground level, and make wall narrower as it goes up. Use top soil for rock plants between the stones. Tilt stones so rain reaches plant roots.



If your doorway gets full force of storms, protect it with a shelter like this. You will also be providing a convenient shelter for rainy day guests.



Outdoor fireplaces are lots of fun. Can be made of fieldstone, brick or concrete. Buy grill before you build fireplace, to assure fit.



Once old and worn—now the showplace of the neighborhood

Many times the problem of improving the exterior of a home does not require extensive remodeling, as was the case with the home shown in these "before and after" pictures. Here asbestos siding shingles were applied over the old wood siding and the brickwork painted to harmonize.

RIGHT AND WRONG METHODS OF LANDSCAPING



WRONG

RIGHT

The Symmetrical Small Home

WRONG: Planting is unbalanced, therefore out of harmony. Shrubs are too large for small house. Planting tall shrubs in front of windows interferes with light and view. Largest masses placed at extremities detract from the center of architectural interest—the door. Largest planting groups at rear take away from front of house. Planting is too spread out; gives a squat appearance.

RIGHT: Planting is balanced, therefore harmonizes with house. Shrubs are kept low to add to apparent size of house and to avoid interference with light and view. Tallest shrubs around doorway accent the most interesting feature of the home. Combining rounded and pyramidal shrubs produces variety and interest.



WRONG

RIGHT

The Irregularly Shaped Home

WRONG: Wing makes right side of house "heavy". Use of large planting around wing disturbs balance. Stunted shrubs in front of main house are out of proportion. Large tree overhanging walk interferes with access to house. Side of house is bare because no shrubs were used.

RIGHT: "Heavy" side of house balanced by greatest weight of shrubbery in front of "light" side. Low planting in front of wing, with larger planting in front of main house, produces good proportion. Shrubs are kept back from walk and used low. In absence of interesting doorway, chimney is used as center of interest. Vine trained over chimney enhances general effect. Tall tree in foreground balances extending wing.

WRONG

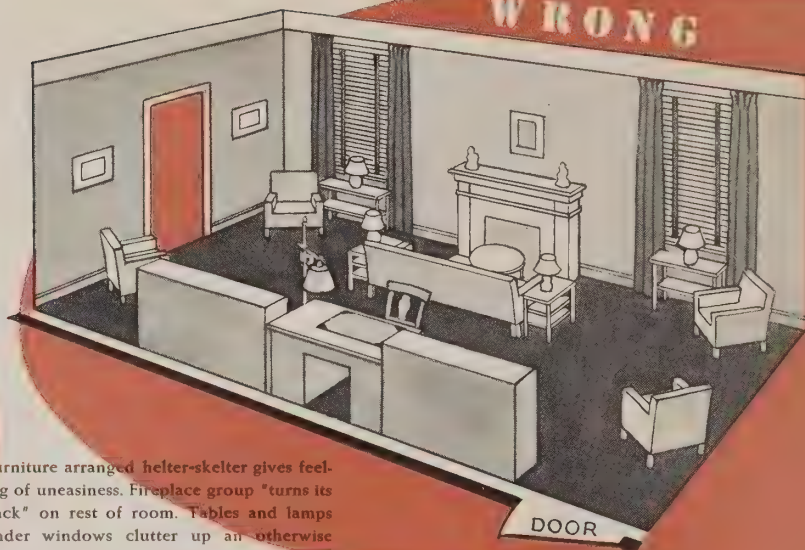
AVAILABLE
FLOOR SPACE

DOORS IN CORNERS
MEAN MORE SPACE

Wrong: Doors hung in center of walls cut down usefulness of floor space; also hamper furniture placing. Right: Hung in corners, doors take up minimum amount of wall and floor space.

AVAILABLE
FLOOR SPACE

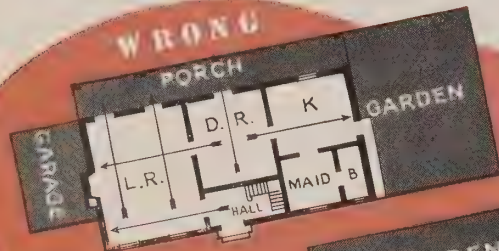
RIGHT



Furniture arranged helter-skelter gives feeling of uneasiness. Fireplace group "turns its back" on rest of room. Tables and lamps under windows clutter up an otherwise charming effect. Fireplace wall lacks interest. Chair and bookcases at right partially block entrance.

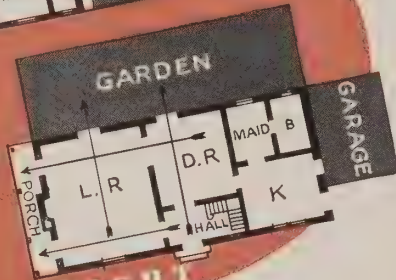
SUGGESTIONS FOR PRACTICAL ROOM

WRONG



VISTA PLANNING

Wrong: No vistas from hall or dining room. Bad view into working part of kitchen from dining room. Garage cuts off useful light. Garden not visible from indoors. Right: Inviting views or vistas from living room, dining room and hall. Garage now accessible from house.



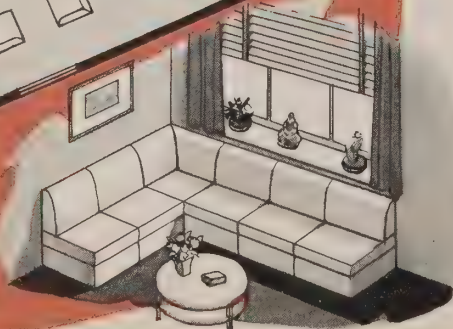
RIGHT

FIREPLACE AS FOCAL POINT

Conversational grouping of furniture around fireplace provides central point of interest in the living room.

FOCAL POINT WITH NO
FIREPLACE

Corner grouping of important furnishings is logical method of supplying focal point of interest when there is no fireplace.



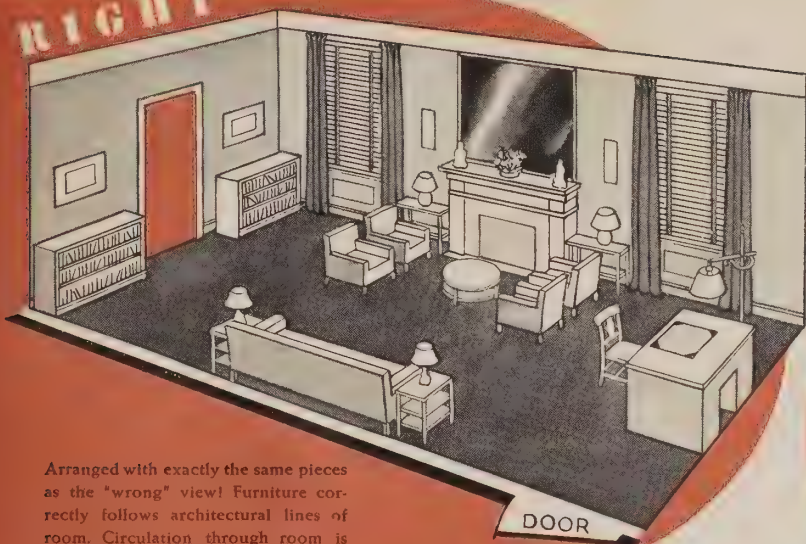
"Rooms are made to be lived in" may seem like a trite phrase, but it is one, nevertheless, which cannot be overemphasized. Through intelligent planning and arrangement, every room in the home can be made inviting, while thoughtless planning will result in a room lacking in character—one which holds little attraction for the family or the guest.

The specialized uses of the kitchen and bathroom demand special consideration. These rooms are therefore treated elsewhere in this book. For the living room, dining room and bedroom the following suggestions will be found helpful whether you are building a new home or seeking to improve your present home.

THE LIVING ROOM:—This is the "leisure" room. It should be restful, cozy, and conducive to conversation. Furniture should be arranged so that 6 or 8 people can be seated as a group as easily as two people. To achieve this result, furniture groupings should be made so that additional chairs can be drawn into the circle with little or no difficulty. The fireplace is the logical focal point in most living rooms. Lacking a fireplace, a center of interest can be created around a window, a corner, or even by grouping pieces along a wall. Avoid arranging furniture so that a passageway is the result. Keep the floor area as open as possible for free circulation at all times.

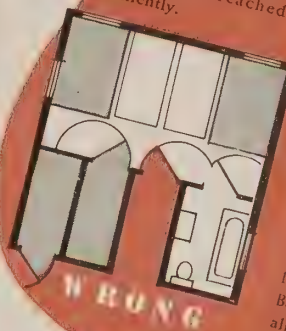
The modern trend to small homes has put a premium on space; hence many home owners combine living room and dining room by placing the dining equipment at one end or

RIGHT

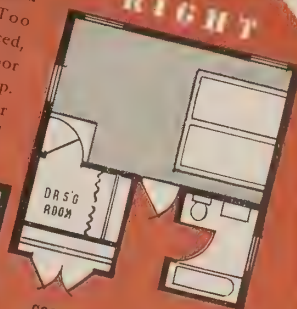


Arranged with exactly the same pieces as the "wrong" view! Furniture correctly follows architectural lines of room. Circulation through room is unhampered. Fireplace grouping is now correct. Note large mirror or picture above mantel.

BAD PLANNING OF BEDROOM
Draft across beds. Too many doors, badly placed, result in little useful floor space. Closets too deep. Bathroom window over tub cannot be reached conveniently.



RIGHT



GOOD BEDROOM PLANNING
Beds protected from drafts. Doors in corners, and swinging out of room, give largest usable floor area. Bathroom accessible from all rooms. Note dressing room; also wide, shallow closet with double doors.

ARRANGEMENT *and* FLOOR PLANNING

in an alcove. When entertaining, it is highly desirable to throw both rooms together, rather than divide the party into groups.

THE DINING ROOM:—The arrangement of dining table and chairs tends to create a formal atmosphere. To offset this formal tendency, corner cupboards, with sparkling glassware and tastefully displayed china, will lend a softening note to the entire room. A bay window, or a French door leading to a terrace will add interest, and at the same time permit maximum utilization of natural light. In summer, dining on the terrace can be a welcome diversion.

Dining rooms should be designed in scale to the furniture. The controlling factor is usually the size of the table, both open and closed. Ample space should be left between the table and the walls to permit easy passage for serving. 12' x 12' is considered the minimum practical size for a dining room for the small family. Placing the door between kitchen and dining room in a corner will tend to isolate each room from the other.

THE BEDROOM:—Bedroom furniture presents problems in planning which must be carefully considered. The ideal arrangement creates an unbroken area which can be used as a sitting room. Doors and windows should be placed so that beds, vanity, dressers, chairs and tables will utilize the wall space efficiently. Small-scale furniture should be used, and focal point should be under a window or in a corner. Cross ventilation is mandatory, but must not interfere with the comfort of the sleeper.

This is a socially handicapped arrangement. Living room separated from dining room divides group, makes serving of refreshments or buffet supper difficult.



RIGHT



Living room and dining room can be thrown together. Group never becomes divided. Wide doorway to dining room minimizes separation, makes serving easy.

Color



There is no mystery or "Merlin Magic" in the use of color, yet it can work miracles and do seemingly impossible things when properly applied. Color can make a room seem larger or smaller, higher or lower, wider or narrower, quiet or gay. An ordinary room can be given character with color, depending upon its intelligent selection and placement. It's all in knowing how—and here's how.

Let Nature be your guide. Her flawless color schemes will create year 'round beauty and contentment in the home. In the group at the left, see how Autumn's color scheme forms the basis for this charming, unaffected room. Fleecy white clouds are interpreted in the ceiling while the rust and green of the hooked rug complement the rich brown earth tones of the floor. The mellow pine paneling and honey colored maple of the furniture are a perfect foil for the vibrant tones of Autumn's variegated foliage suggested in the wall, drapery and upholstery colors. What more perfect combination than Nature's own rich blends for an Early American living room!

Winter, reversing color values, offers a stately color scheme appealing to those who prefer Modern. The austere beauty of a Winter day is exemplified in this Modern living room in which walls are the frosty blue of a wintry sky with icy glass brick window, and sparkling mirror and chromium moulding. And Nature's own blanket of sparkling snow is found in the untraditional white rug, all of which form the perfect setting for the rich green of the spruce, and the tan and brown of leafless trees depicted in the furniture and upholstery. Distinctly different and smart in treatment, is this handling of color.

Summer's color scheme, as shown at the upper right, is refreshing and restful for any room. She proffers the soft green of her foliage for these panelled walls; her cheerful profusion of multi-colored blooms allows a wide choice for wall-paper and accessory selection; her rich productive soil is duplicated in the furniture and floor colors; the deep blue of a placid summer lake is reflected in the rug tone, while sunshine itself enters this charming room in the draperies. Yes, this color scheme is truly a tonic; a positive formula for a 'never-grow-tired-of-it' room.

Of course, there are other methods of selecting your color schemes. You may have a cherished picture or a favorite piece of chintz. Don't worry about fitting it into your room. Just build your room around it. It is so simple to do, you will enjoy the work, and be charmed with the results. Here we have used the light blue background of a floral chintz for the walls of an attractive bedroom, accenting them with mouldings, wainscoting and trim of deep peach color found in the floral pattern of the material. The shallow alcove behind the beds is covered with the chintz; and again it is combined with plain, dark peach chintz for the bedspreads. Floor and furniture colors are found in the deeper tones of the foliage; and the flower shad-



LIFTED FROM NATURE'S PALETTE TO BRING BEAUTY TO THE HOME

ings in the rug and mirrored drapery. The accessories incorporate the various colors and tones of the design. So, with little time and effort, you, too, may similarly plan a cheerful, colorful room, inspired by some keepsake or heirloom.

The color of each room should harmonize with the adjoining rooms. In practically every home, the hall color is a blending tone between rooms. The absence of strong color in the hall is, in many cases, advisable, for usually the hall color continues to the second floor and so must serve to blend the rooms that branch from it.

The color in the living room will of necessity be the most important with which you are concerned. Let us say the room is on the south side of the house. What could be more charming than walls of Georgian green—that soft, cheerful, blue-green—the perfect accent for flesh tones, for blond or brunette, a suitable background for the visitors to the house. This color acts as a successful foil for walnut or mahogany, oriental rugs, rich tones of upholstery, the golden sheen of damask draperies.

The dining room must be cheery in tone, more gay and vivacious, perhaps, than any other room in the house, for in such a room food will taste better and digestion will profit.

Look toward period rooms for inspiration for your color schemes. They have brought us, through the centuries, exquisite colors which symbolize the time in which they were created. The delicate tones of blues and gold-creams symbolize the richness and sophistication of the Louis' of France. In an Early American house the settings would be the opposite, for heavier tones of colors were used, such as brick red, earthy tones, mulberry, indigo blues and mustard yellows. Yes, these colors were expressive of Colonial times. Try them! The effect is amazingly beautiful.

Manufacturers today reproduce these colors exactly in draperies, upholstery and rugs. Why not color your walls to harmonize with them? Throughout the country, people have admired the colors of Williamsburg, and museums have shown the true coloring of Colonial times.

Bedrooms call for a different type of color scheme. Soft pastel colors,—soft peach, pink, blues and greens are the favorites. Smart decorators today are utilizing the wall against which the head of the bed is placed, giving it a different color from any of the other three walls in the room.

Yes, color comes to the home,—gay, fresh and brilliant,—vibrant in tone. It acts as an inspiration to those who have it. And now it is easy for those who have admired and wanted it, but who have never dared!



As an artist, with dripping brush, puts Nature's glorious tones on paper, so do these rooms re-create the seasons within doors. Autumn, winter, spring . . . how suitable they are as the color key for our rooms! At the lower right—a suggestion for decoration using a pleasing chintz as the inspiration.



J-M GLAZE-COAT BEVEL PLANK WITH CEILING OF GLAZE-COAT BEVEL PANELS

DECORATIVE INTERIORS *for* NEW HOMES AND OLD

*N*O LESS FASCINATING than "lifting the face" of a home is the adventure of changing all or part of the interior to suit your immediate needs. The color illustrations on these pages show some of the attractive effects for walls and ceilings which can readily be obtained through the use of modern, pre-fabricated, pre-finished materials. These materials may be applied in new construction as well as in existing homes. While they are most often used to decorate the entire room, they combine readily with other treatments. In a room with plastered or papered walls, for instance, they may be applied as a dado or wainscoting, as an alcove lining or as a ceiling treatment. The surface of these materials is generally such that no additional decorating is required. A recent Johns-Manville development is a "glazed" surface, known as Glaze-Coat, which is obtained by a special treat-



CEILING DESIGN OF VARIEGATED BEVEL PANELS

ment during manufacture. The lustrous surface reflects light without glare and tends to repel dirt. A pleasing Variegated effect, also using the Glaze-Coat type of surface, has been obtained by combining four harmonizing shades as illustrated at the bottom of these pages. Ordinary smudges and stains can be removed by a light rubbing with a dry rubber sponge. Greasy marks may be removed with organic type cleaners such as high-test gasoline, benzol and carbon tetrachloride, applied with a cloth. Should a change of color be desired at some future date, the Glaze-Coat or Variegated finish will be found an excellent base for the paint. Natural or Glaze-Coat board can be painted with casein paints without the need for sizing.

Re-finishing over old walls and ceilings is a quick, clean and economical process. In contrast with former methods, it does not require that furniture be moved out of the room, or even protected with the usual heavy cloths. Perhaps most important of all is the fact that there is no long period of inconvenience while the work is being done.

Because of the additional insulating value of this type of product, many builders of small homes use these materials for their finished interior walls. Thus they obtain a generous measure of protection against heat and cold, with the added advantage of having a complete wall material. This type of construction not only hastens the time of completion but may produce a substantial saving in labor cost.



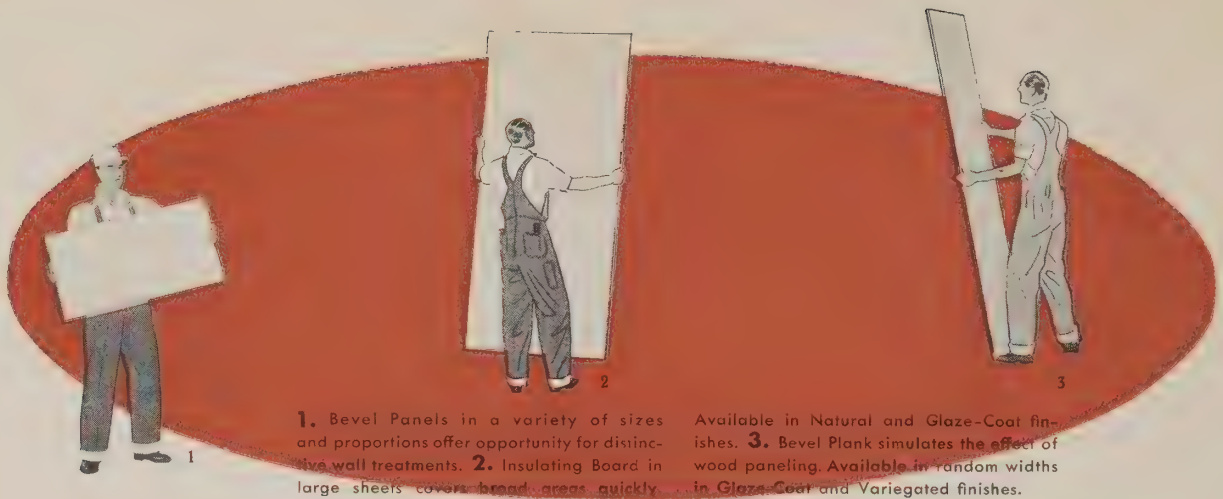
Designed in the modern manner from floor to ceiling, this room depends on Glaze-Coat Bevel Panels and scored sheets for correct interpretation of the designer's ideas. Score marks in the wide sheets provide the interesting effect of bands on the wall. Even the border at the ceiling line is cut from the same material.

VARIEGATED BEVEL PLANK OVER HARD BOARD DADO



PANELED EFFECT ACHIEVED WITH GLAZE-COAT SHEETS AND WOOD MOULDINGS





These materials are also excellent for building partitions in the basement, for covering basement walls, and for finishing off attic rooms as described on pages 44-47. They may be left in their original color, or painted to suit, as described on the preceding page.

The illustrations at the top of this page suggest the variety of forms in which J-M Insulating Board products are furnished. For greatest economy, large-size sheets in Natural or Glaze-Coat finish may be used. Scoring or decorative designs may readily be cut into the surface by the contractor.

A useful companion product is Hard Board (Standard and Tempered), a dense, hard-surfaced, durable board of soft brown color and remarkable resistance to hard use.

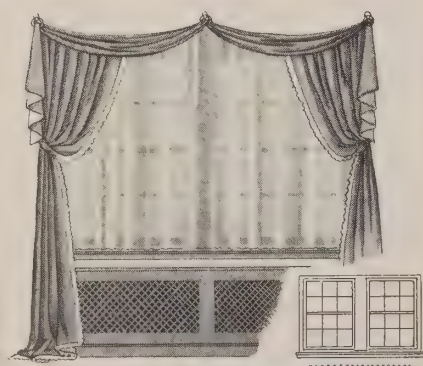
With these new materials, all joints can be made part of the decorative scheme. Among the many joint treatments are beveling, beading and beveling, and covering with polished metal mouldings or attractive paneling of other materials.

Later in this book, kitchens and bathrooms are discussed, with recommendations for sanitary, colorful wall finishes in these important rooms.

INDOOR IMPROVEMENTS FOR BEAUTY AND UTILITY



A



B



C

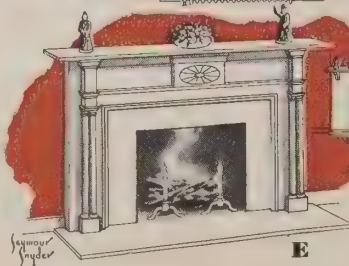
D. Handy built-in telephone cabinet. Seat raises when not in use.
E. Decorative fireplace mantel can easily be installed to replace plain unattractive mantel.
F. Small downstairs closet holds luggage and bridge tables.
G. Understairs closet. Painted or papered in gay color. Includes hat stands and hangers, wood umbrella rack with zinc trough, also trough for rubbers, brush bag on door, hat holders, vanity cabinet, board for keys, compartment for men's hats, storage drawers below.



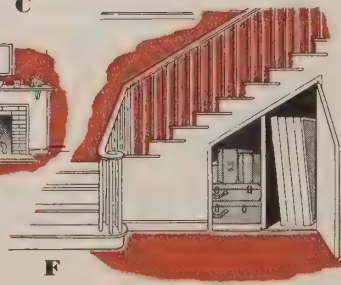
D

SOLVING 3 WINDOW PROBLEMS

A. For corner window. Use 6-glass sashes. Hang one drape from corner to first mullion. Hang other to cover frame only.
B. For double window with radiator. Install radiator cover. Hang glass curtains, with drapes covering top of both windows. High tie-backs give sweeping lines.
C. Shallow window. Casements recommended. Hang drapes on swinging cranes.



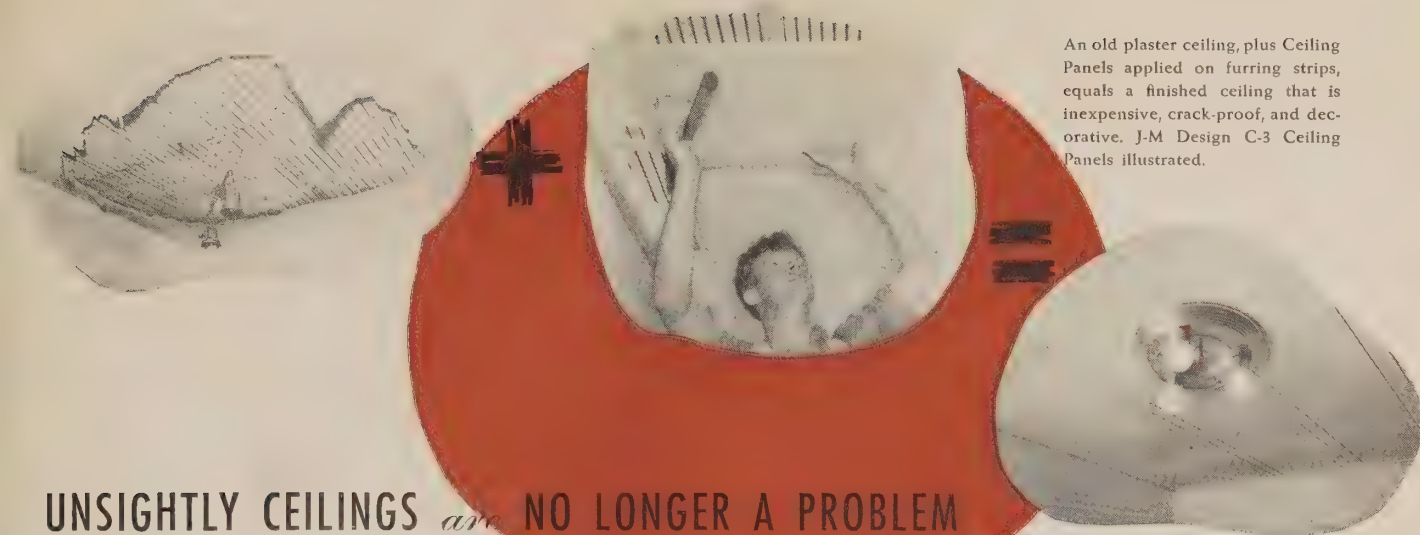
E



F



G



An old plaster ceiling, plus Ceiling Panels applied on furring strips, equals a finished ceiling that is inexpensive, crack-proof, and decorative. J-M Design C-3 Ceiling Panels illustrated.

UNSIGHTLY CEILINGS *are* NO LONGER A PROBLEM

ONE OF THE MOST exasperating conditions which the home owner sometimes has to face is the problem of cracked, discolored ceilings. Heretofore, there has been no sovereign remedy, except expensive removal of the old plaster and application of new plaster. But now manufacturers of fibre board products have developed their materials in sizes and styles suitable for ceiling use. As shown in the illustrations on this page, these materials are applied on wood furring strips which are nailed to the joists. This furnishes a secure nailing base. A perfectly level ceiling is obtained by "shimming" the furring strips with small slivers of wood, wherever irregularities occur in the old ceiling.

Being a pleasing buff or of variegated colors, the board requires no additional finishing, unless special effects are desired. The advantages of this method are apparent. Since a 9 x 12 room can be done in one day, there is no prolonged confusion, and the room is ready for use the same night. In new construction, crack-proof ceilings can be assured by specifying one of these materials.



Multiple Bevel Panels cover large areas quickly, resulting in a patterned ceiling at low cost.



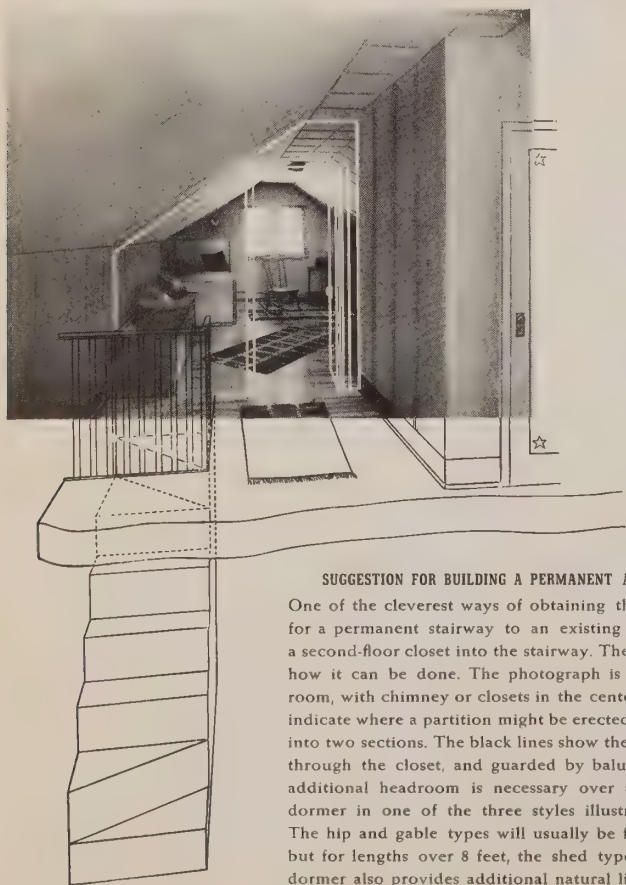
Above: 24" x 24" pattern obtained with individual Bevel Panels or Multiple Bevel Panels. Blended ceilings are also available with Variegated Bevel Panels. Note how walls in both views have been made with Bevel Plank and Bevel Panels in Glaze-Coat finish. Left: Ceiling of Decorative Ceiling Panels, Design C-3.



the ATTIC... AND HOW TO

EVEN THOUGH THE NEED for more space within the home in recent years has made many home owners conscious of the potential values of the attic and basement, fully 30% of the space in most houses goes to waste because these possibilities are overlooked. These two pages are devoted to the subject of attics—their possibilities of use, and how to finish them off. Basements are similarly described on the following pages.

With little or no additional preparation, the average attic stands ready to be made into a useful room. Large sheets of Insulating Board (see pages 40-43) can be applied right to the rafters. For the floor, all that is needed is to cover the beams with a sub-floor, over which is applied a finished floor of wood, linoleum or Hard Board. If there is no existing stairway, one can be provided by either of the two methods described elsewhere on these pages.



SUGGESTION FOR BUILDING A PERMANENT ATTIC STAIRWAY

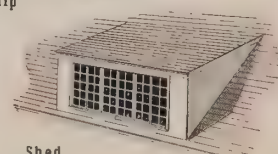
One of the cleverest ways of obtaining the necessary space for a permanent stairway to an existing attic is to convert a second-floor closet into the stairway. The illustration shows how it can be done. The photograph is of a finished attic room, with chimney or closets in the center. The white lines indicate where a partition might be erected to divide the attic into two sections. The black lines show the stairs going down through the closet, and guarded by balusters at the top. If additional headroom is necessary over the stairs, build a dormer in one of the three styles illustrated at the right. The hip and gable types will usually be found satisfactory, but for lengths over 8 feet, the shed type must be used. A dormer also provides additional natural light.



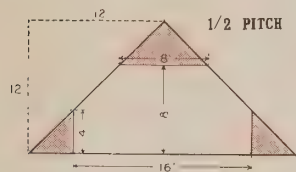
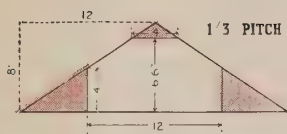
Hip



Gable



Shed



CAN YOU HAVE A ROOM IN YOUR ATTIC?

Triangles show the two common types of attic—the one-third pitch attic, and the half-pitch, as they would be in a home 24 feet wide between eaves. Dimensions give maximum size of room which each will accommodate. Minimum height for headroom is 6' 6"; eight feet is ample. Four feet is minimum height for the walls. By finding the points at which a four-foot wall would come, you know at once how wide your room can be. And by measuring you can also find just how wide your flat ceiling can be. The length, of course, is optional. Lest you feel that the room is cramped, remember that you usually stand up in the center area of any room, and that, when seated, the average person requires little more than 4 feet of ceiling height.



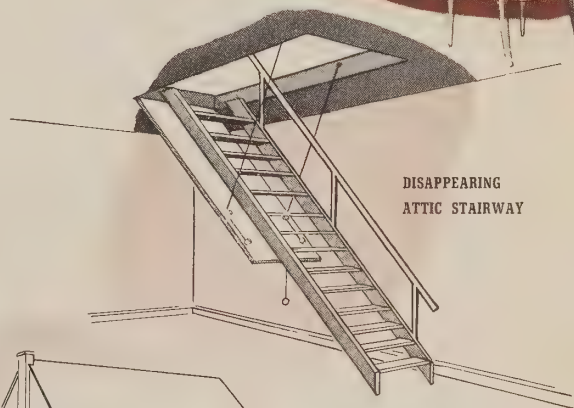
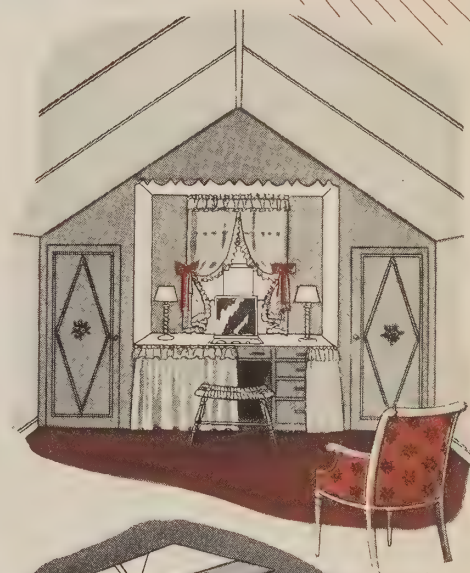
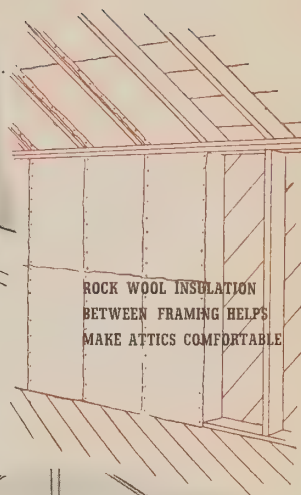
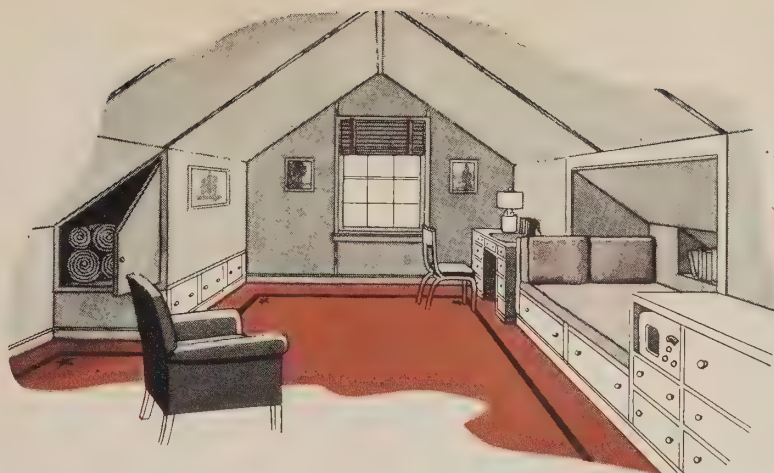
MAKE BETTER USE OF IT

We've shown at the upper right two very interesting ways to use waste attic space. The boy's room deserves special mention for its many useful ideas. Beginning at the extreme right, note the double bunk, with a book niche at hand. At the head of the bunk, see the convenient knee-hole desk. The open door at the extreme left reveals a utility closet for storing rugs. Drawers and cabinets on each side of the room provide ample storage space for clothes and linens. For the wall treatment, we suggest Glaze-Coat Insulating Board in large sheets with the joints covered by inexpensive metal-covered wood tack-on mouldings.

The young lady's room is an adorable spot for leisurely primping. The center of interest is a dressing table or knee hole desk from the top of which one lifts a hinged mirror. Draw-curtains in front lend charm. The doors at either side, with their floral stencil designs and their diamond paneling made of wood moulding, open into convenient closets. Across the top of the alcove is a valance of cloth, plywood or Hard Board.

Comfort in this room must not be overlooked, so we suggest a "blanket" of Rock Wool Home Insulation (see pages 20-21) over and around the whole room, with, of course, such radiators as are necessary. This insulation serves the same purpose as the insulation ordinarily used across the attic floor to keep the lower floor rooms comfortable.

Be sure to install enough lights and outlets. If you want daylight also, you may have to add a dormer or two. Very often this addition improves the exterior appearance of the home as well (see lower right).



DISAPPEARING
ATTIC STAIRWAY





FINISHING OFF A ROOM IN THE BASEMENT when you build is no more difficult than finishing one of the upstairs rooms, and your choice of effects is practically unlimited. Your architect, knowing your plans, will see to it that pipes will be placed so as not to interfere with the effect you desire. Finishing off a basement in an existing home, however, means that you will have to correct some of the conditions which are inherited from the days when cellars weren't made to be lived in. But this is not a difficult task, as you will see from the following description.

Furnaces, laundry tubs, coal bins, storage closets—Your plans will undoubtedly make provision for hiding these things from view by the walls of your new room.

"Lally" columns—Can be painted the same color as the wall, or in contrasting colors for emphasis. Can also be used as an axis for a round table or seat. One excellent suggestion is a hollow fluted wood column, such as is shown in the picture below. This column can be cut lengthwise, fitted around the "lally" column, then glued and screwed together.

Windows—Can be beautified in many original ways. (See suggestion at lower right.)

Steam or hot water heating pipes—Generally these are placed around the outside of the cellar. If too low, they can probably be raised. If heat is desired for the new room, remove a few sections of the pipe covering. Paint the pipe and the pipe covering to match ceiling color.

the BASEMENT...



STORY OF A CELLAR

Starting with the "before" picture directly above, these two pages depict the amazing transformation of a cellar into a swank, "clubby" entertainment room. With the exception of the curved bar and the tennis table, practically everything is made with Johns-Manville Hard Board, painted to the designer's specification.

The use of white for the walls and ceiling immediately conceals the fact that the room is underground. This effect is heightened by the use of Venetian blinds. Apart from their decorative purpose, these blinds serve to hide the furnace room and laundry. When raised, they permit access to the desired areas, and also provide ventilation. By boxing in the air conditioning ducts, and making curved angles, rather than sharp corners, the designer has created the illusion of a graduated ceiling.

The mirror behind the bar, reflecting the walls of the room, adds a feeling of spaciousness. In small areas, the use of mirrors is recommended to give a sense of size. In keeping with recommended practice, the floor has been covered with asphalt floor tile in a pleasing blend of warm colors.

This basement was designed by E. Walter Jansen, M.E., well known New York City decorator. Descriptive drawings of this transformation, and details showing application of all J-M materials are available from Johns-Manville, 22 East 40th Street, New York City.



Warm air heating ducts— If ducts are round, they should be replaced with shallow rectangular ducts, fastened to the ceiling. Can be painted to match ceiling color or boxed in. If latter course is chosen, install registers or grilles at intervals to supply heat to the room.

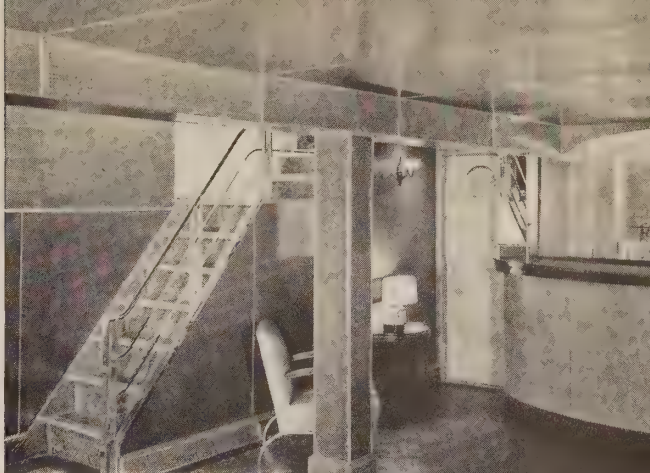
Soil pipes— Can generally be run to a less conspicuous place, hidden altogether by a partition or boxed in.

Hot and cold water pipes— Small in size, they are unobtrusive and need not be moved. If hung too low, raise them close to ceiling with malleable iron hangers. To prevent "sweating" of pipes in damp weather, cover them with hair felt insulation, available from any plumbing and heating supply house.

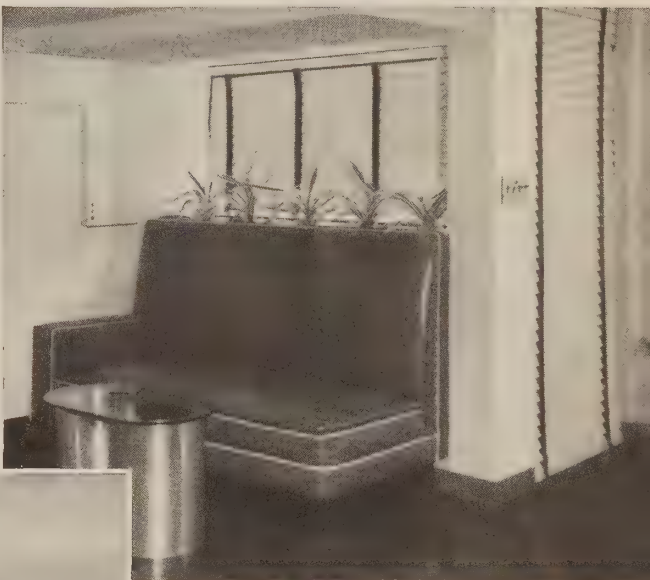
To finish off the ceiling with small units (Bevel Panels) the contractor first applies 1" x 2" furring strips to the joists. If you wish large sheets, he may be able to nail them direct to the joists, provided that the bottoms of the joists form a level surface. Walls within the main cellar area are constructed with 2" x 4" studs resting on 2" x 4" sills. If necessary for the strengthening of the finished wall surface, furring may be applied. This construction is also used to cover foundation walls.

For a decorative floor, you may select paint, if moisture is not present, or J-M Asphalt Floor Tile. Unfinished concrete floors will often "dust" unless they are covered as described above, or treated with a special compound available from your building material dealer.

with or without a past



Above: Basement room finished with Asbestos Flexboard and Hard Board. Below: Venetian blinds hide furnace room and laundry.



To make small cellar windows appear larger, replace old swinging window with mullioned glass. Install window frame, with half-blinds.



HOW CELLAR WALLS ARE COVERED



This photograph shows how studding is erected on 16" centers to receive 4' wide wall boards. Framework is of 2" x 4" or 2" x 2" lumber. Note how studs have been notched to go around the return steam line. No furring is necessary unless small units of wall board are used.

Large color illustration: Kitchen walls covered with Decorative Asbestos Flexboard in Buff and Green. Small color illustration: Bathroom walls covered with sheets of Ivory Asbestos Wainscoting.

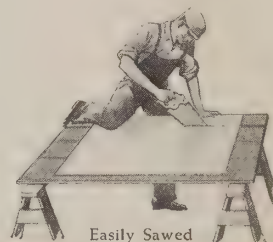
BUFF

New COLORFUL

● Kitchen and bathroom walls are subjected to special conditions of heat and moisture that require finishes which are sanitary, easy to clean, and free from upkeep. To meet these requirements at low cost, building materials manufacturers have recently developed new materials designed for simple, easy application. Two of these materials are Asbestos Wainscoting and Asbestos Flexboard, described on these pages. Made in large sheets or panels, they can be installed with ease in a new home during construction or over the existing walls of your present home. Their attractive color and distinctive surface characteristics offer a wide choice to suit not only individual tastes but the requirements of the type of room in which they are used.



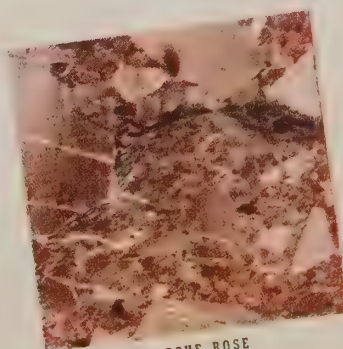
Large
Sheets



Easily Sawed



VERDE ANTIQUE



BRECHE ROSE



JAUNE FLEURI

These four beautiful designs are the colors of Marbleized Asbestos Wainscoting. For general effect see pages 52 and 53.

GREEN

ROSE

SLATE

These five colors—Buff, Green, Rose, Slate and Light Gray, represent the colors of Asbestos Flexboard. All furnished with or without scoring.

LIGHT GRAY

Materials FOR

KITCHEN AND BATHROOM WALLS

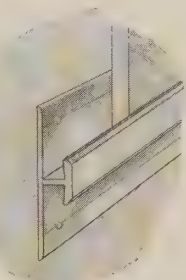
Decorative Asbestos Flexboard—An integrally colored asbestos-cement sheet in plain design or scored into 4-inch squares. Lustrous polish. Can be sawed and nailed easily, and curved within reasonable limitations. Nothing to crack, chip or craze. Can be cleaned with a damp cloth. Lustre can be restored with a good household wax. Sizes: plain design, 48" x 96" x $\frac{1}{8}$ "; scored design, 48" x 48" x $\frac{1}{8}$ ". Colors: Rose, Green, Gray, Buff, Slate.

Asbestos Wainscoting—A rigid, asbestos-cement sheet with a "baked-on" surface which will withstand steam and hot water. Will not spot or stain. Cleaned with a dry or damp cloth. Furnished plain and scored, 48" x 48" x $\frac{1}{4}$ "; also marbleized, 32" x 48" x $\frac{1}{4}$ ". See color illustrations.



Neatly
Nailed

Trimmed with
Metal Moulding



LIGHT BLUE

IVORY

BLACK & GOLD

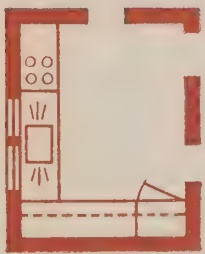
LIGHT GREEN

WHITE

These four colors—Light Blue, Ivory, White and Light Green are the colors of Asbestos Wainscoting. Also available without scoring (Color Panels).

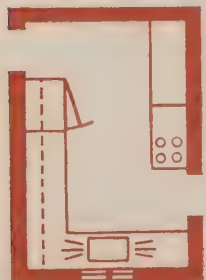
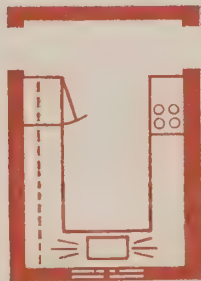


PLACING THE KITCHEN ON A BUSINESS BASIS!



Above: The "L"-shaped kitchen is second in convenience. In large rooms it often permits a dining table to be included.

Below: The "U"-shaped kitchen is the most convenient. Everything is within a step or two. "Line" preparation of foods is easily achieved.



Left: A broken "U" is often necessary, but should be avoided if possible, as traffic interferes with efficient work.



Left: Try to arrange units so foods in preparation move in an unbroken line from refrigerator or pantry to dining room.

THE FOREMOST CONSIDERATIONS in kitchen planning are these: 1) the size must be right; 2) the service units must be placed most efficiently; 3) door openings must be kept to a minimum. Other important questions include the following: how many will there be to feed?; will laundering be done in the kitchen?; will it ever be used for canning? All these factors play a part in determining the size, shape and arrangement of your kitchen. They even influence plans for modernizing existing kitchens.

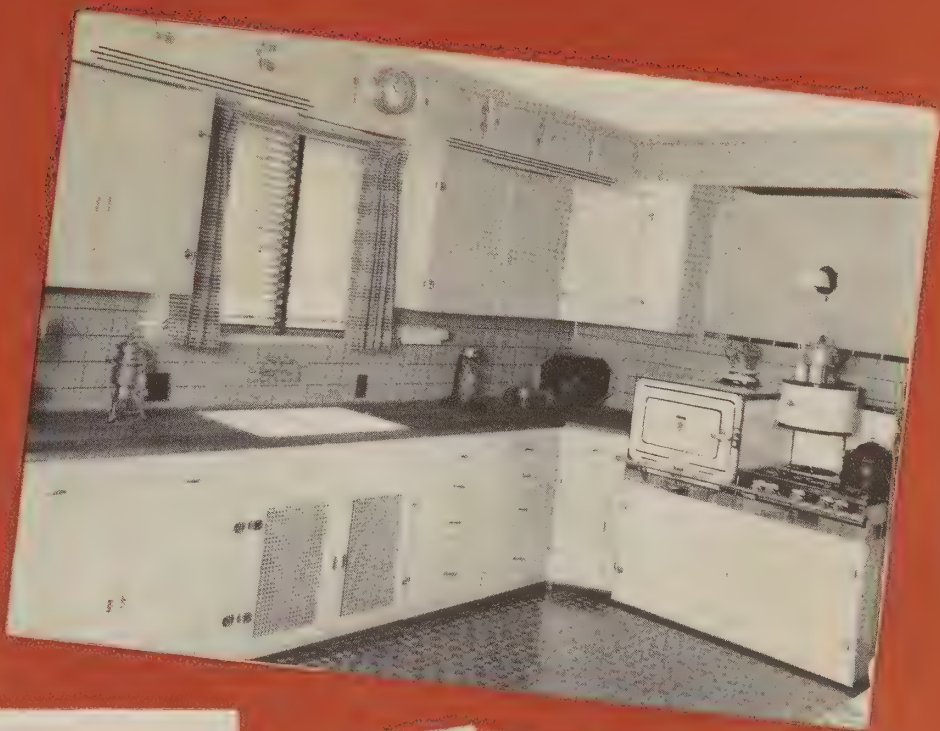
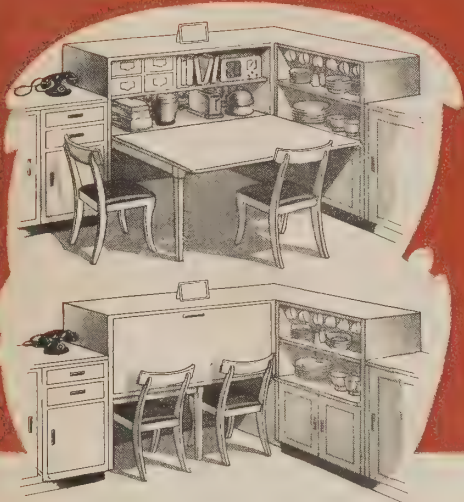
The three work centers of the kitchen are the range, refrigerator and sink. Secondary, but of great importance, are the storage facilities and the method of moving food and tableware into the dining room. It is generally wise to place

Lower right: Since the kitchen is the center of the home, it should be centrally located as far as possible, as suggested by this diagram.



DINETTE AND OFFICE CENTER COMBINATION

Upper view: Swinging leg supports cabinet door as it becomes table for work or dining. Additional support given by china cabinet shelf at right. Electric appliances plug in on lower shelf. Upper shelf for office supplies. Kitchen silver in cabinet at left. Linens in cabinet under china shelves. Lower view shows door closed.



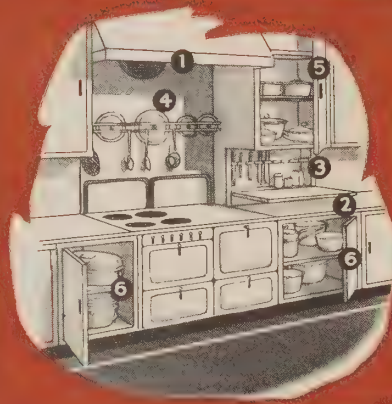
the refrigerator near the counter or table upon which perishable foods will be prepared, with non-perishable and staple articles in cabinets nearby. Kitchen knives and other utensils should be in drawers or cupboards within easy reach.

One of the features of the modern kitchen is the extensive counter top extending on each side of the sink. This not only provides uncrowded space for washing dishes, but enables one to install a "line production" method from refrigerator, to sink, to stove, to table. A cabinet adjacent to the stove will keep spoons, thermometers, saucepans and other accessories where they can be reached conveniently.

Kitchens fall roughly into three classes, as shown in the floor sketches on these pages. The "U"-shaped layout concentrates the three work centers closely around the housewife. The "L"-shaped kitchen is desirable where wall space is at a premium. A plan which places the work centers along facing walls is least convenient, since the worker is in the path of traffic. By revision, it is often possible to change such a plan into a modified "L" or "U" shape, which will be found a great improvement.

If your present kitchen is too large, it can be reduced in size by setting aside part of it for a dining alcove, desk center, pantry or lavatory. If it is too small, you may be able to steal a little space from an adjoining room.

Be sure to have plenty of light, and enough outlets for your electrical equipment. Outlets can now be purchased in "strips" so that you can plug in almost any place. Modern long bulbs can be placed under cabinets where they will illuminate otherwise dark areas. Floor materials should be easy to keep clean, and preferably patterned so as not to show footprints. Don't place windows in corners! Keep them at least 13 inches away, and you can put a wall cabinet in the space thus made available.

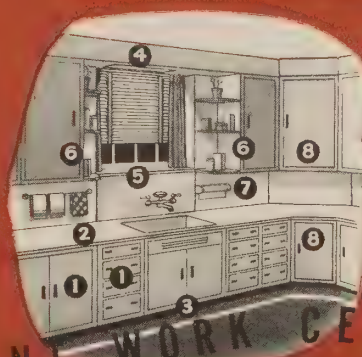
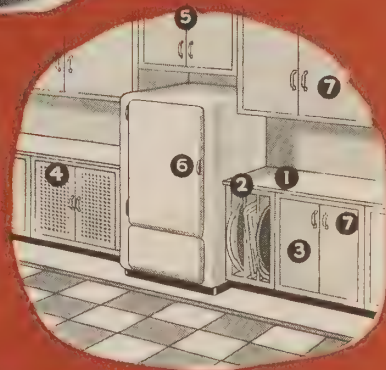


THE RANGE CENTER

1. Ventilating fan and hood. Never place cupboards above stove.
2. Cutting table near stove.
3. Drop door conceals knives and seasoning in wall cabinet.
4. Rack for pot lids, ladles, etc.
5. Keep serving dishes near stove in upper cabinet.
6. Keep cooking utensils near stove in lower cabinets.

THE REFRIGERATOR CENTER

1. Shelf for food entering or leaving refrigerator.
2. Handy tray rack.
3. Food receptacles in nearby cupboard.
4. Fruit and vegetable bin with grilled doors.
5. Cabinet for seldom used articles.
6. Order refrigerator with door opening on side nearest sink.
7. Place upper cabinet handles low; lower cabinet handles high.



THE SINK CENTER

1. Space for utensils and pots.
2. Clear working space.
3. Base recessed for toe space.
4. Concealed soffit light.
5. Shallow, wide window permits sink to be placed under it.
6. Corner shelves for articles often used.
7. Paper towel roll saves linens.
8. 45° corner cupboards utilize space efficiently.

WHERE AND HOW TO PLAN THE BATHROOM



ONCE UPON A TIME one bathroom was considered ample for a large household, but today there literally can't be too many bathrooms. For the small home, the absolute minimum is one bathroom upstairs and a lavatory downstairs. As the size of the house increases, or as additional entertainment demands are placed upon it, the number of bathrooms and lavatories should increase.

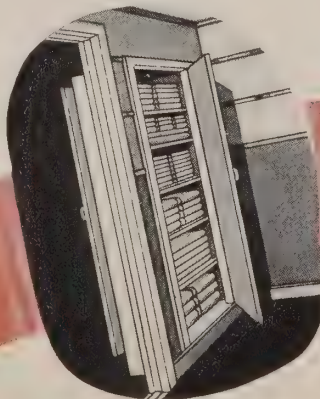
Your architect will naturally take your needs into consideration when he plans your new home. You will help him in this task if you do not ask to have the bathroom in a non-central location, or in such a position that it is plainly visible from the bottom of the stairs. Convenience stipulates that it be centrally located, easily accessible from all rooms, unless you have a master bathroom with a second bath for general use. In the household tenanted by two or more business men, extra facilities will be greatly appreciated in the rush of the morning schedule.

A complete bathroom (tub, basin, seat) can be no smaller than five feet square, which is the minimum space into which standard fixtures can be squeezed. Second floor plumbing should be placed above first floor plumbing. Shut-off valves on all hot or cold water service lines should be within easy reach. Size of fixtures should be known beforehand. Doors should be hung in such a manner as to conceal the seat from view from the hall.

When adding a bathroom or lavatory to an existing home, advantage can be taken of dressing rooms or closets, provided that suitable ventilation can be supplied. A bathroom in the attic should be placed over the second floor bathroom in order to make use of existing plumbing.

Where to place the lavatory on the first floor depends on the requirements of the household. Where children will be in need of the "water treatment", the obvious place would be near the service entrance. If entertaining dominates the activity, consider placing it off a secondary hall or passage where guests can use it without embarrassment. A powder room, either alone or in conjunction with a lavatory, is a feature greatly appreciated by feminine guests.

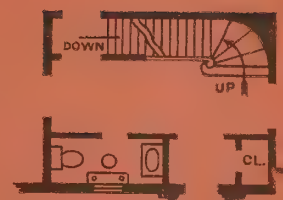
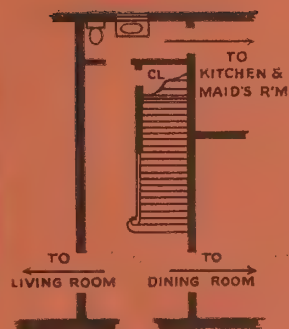
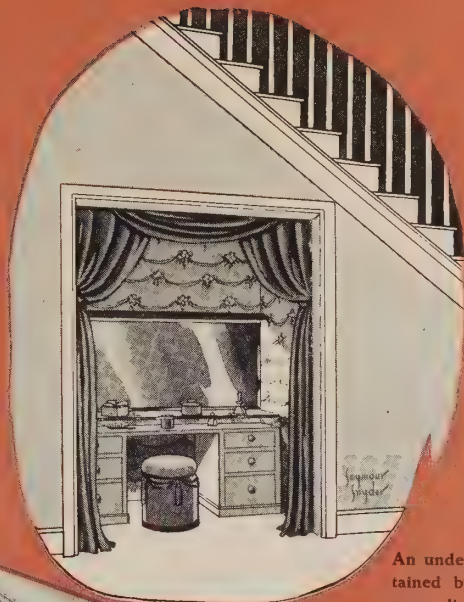
Having ample bathroom and lavatory facilities not only makes a home more convenient and more hospitable, but far more valuable when placed upon the market, should you ever desire to rent or sell.



When bathroom storage space is limited, place linen closet so as to open into bathroom as well as the hall.



Open shelves beside the medicine cabinet are ideal for often used articles and towels.



In a spacious hall, a lavatory may readily be included, as in this illustration. Unusual length permits the inclusion of a powder table.

Placing the lavatory at the far end of a long hall assures privacy and does not take up otherwise useful space.

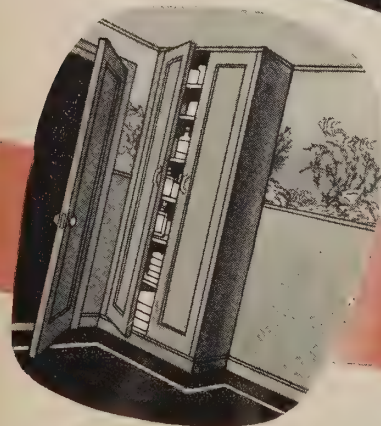
An under-stairs powder room can be obtained by widening the doorway and concealing it with drapes. This space might also be used as a lavatory, in which case, an ordinary door would be necessary.



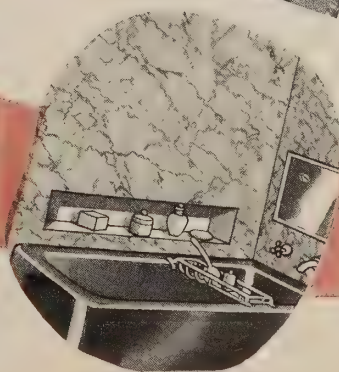
A lavatory such as this, complete with shower stall, may serve as a private bathroom for a maid. Note the narrow hall outside the door.



The two photographs show how Johns-Manville Asbestos Flexboard and Asbestos Wainscoting can be used on bathroom walls. Large view: Asbestos Wainscoting in tile design in the tub alcove, Verde Antique Asbestos Wainscoting on the lower walls, with Ivory Color Panels above. Metal mouldings. Small view: Asbestos Flexboard above Verde Antique Asbestos Wainscoting. For details about these materials see pages 48-49.



When space is at a premium, a built-out cabinet placed behind a door may be the solution to the storage problem. 8 inches is minimum practical depth.



Receptacle in wall keeps necessary bath salts, brushes, etc. at hand. Mirror and sliding soap rack provide added convenience.

*Announcing a new and better way
to build a home or make repairs or
improvements to your present home!*

- Local Housing Guilds, organized in principal towns and cities, offer "one-stop service" . . . handle all details—save you time and money.



All over the country, present and prospective home owners are welcoming the new type of service offered by the National Housing Guild. Until now they have had no place to go for complete advice and service on a new home or home improvement . . . no simple method by which they could obtain, in advance, cost figures for the work as a whole . . . no place where they could buy a home or a remodeling job in a single transaction . . . But today there are hundreds of "one-stop" building service headquarters throughout the country, located in the offices of local Johns-Manville Building Material Dealers.

As members of the National Housing Guild, sponsored by Johns-Manville, these local organizations represent the leading architects, suppliers, real-estate men, lending agencies and contractors who have banded together so that you can buy their

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They offer you a completed job, from planning to financing, at one predetermined price, and with monthly payments at convenient rates. Once you have explained what you want, their task is to see that the work is planned and executed to your satisfaction. Before you build or remodel your home, investigate the many advantages which this new type of service extends to you.



Look for this hanging sign in blue and yellow. It identifies your local Housing Guild Headquarters, as does the circular insignia in blue and gold shown at the top of the page.

REPAIR OR IMPROVE YOUR HOME NOW—PAY LATER OUT OF INCOME

Through the J-M \$1,000,000-to-Lend Home Improvement Plan and The National Housing Act your local Johns-Manville Dealer or National Housing Guild member can arrange the financing of home repairs and improvements for you at the most favorable rates even offered for this type of work. Now you can have

a new roof, new side walls, home insulation, a new kitchen or bathroom, or any of a hundred-and-one other necessary improvements, and pay out of income in easy monthly installments. And you can have these improvements on one contract even if the Johns-Manville materials represent as little as 25% of the total cost of the job.

ANSWERING THESE QUESTIONS

WILL HELP YOU HAVE THE KIND OF HOUSE YOU

REALLY WANT!

IF YOU PLAN TO BUILD OR BUY: Before you buy a home or engage an architect to draw plans, you will find it helpful to list the salient features you desire in your new home. In addition, you

will want to remember other important points to discuss. The following list will help you do this with the least inconvenience. When you have answered the questions, give them to your architect.

1. My preference as to general location is:
(write in name of town which you prefer)

2. (a.) My architectural preference is: ☐ Colonial ☐ French Provincial
☐ Modern ☐ Spanish
☐ English ☐

(b.) I prefer: ☐ Full 2 story ☐ One story and a half ☐ One story or bungalow type

(c.) I need the following: ☐ 2 bedrooms ☐ 3 bedrooms ☐ 1 bath
☐ 4 bedrooms ☐ 2 baths

3. Do I want my home to be Triple Insulated against fire, weather and wear with materials as described on pages 22 and 23?

4. Of the houses illustrated in this Home Idea Book, Design No..... shown on page..... seems most nearly to meet my requirements.

5. Which materials in this book would I prefer for the following rooms?

Attic	Kitchen
Basement	Bathroom
Dining room	Living room

6. Of the following items, which are sometimes dispensed with for the sake of economy, I could get along WITHOUT those which I have checked:

<input type="checkbox"/> First floor study or library	<input type="checkbox"/> Dining room (provided a dinette or dining alcove is available)
<input type="checkbox"/> Downstairs lavatory	
<input type="checkbox"/> Pantry	<input type="checkbox"/> Maid's room <input type="checkbox"/> Maid's bath <input type="checkbox"/> Two-car garage

7. Other information which might be helpful in planning my new home.
.....

IF YOU PLAN TO IMPROVE YOUR HOME: Today, any kind of home improvement can be financed and accomplished almost as simply as you would arrange for the purchase of a refrigerator or car. Your Johns-Manville Dealer or Housing Guild Member will be glad to carry out your plans, or determine what is needed to accom-

plish the contemplated improvement. To help you determine what you would like to have done, the list given on the coupon below has been prepared. After you have checked the items that interest you, send the list to your J-M Dealer or Housing Guild Member, who will give you an estimate together with his recommendations.

For further information fill in this coupon, place in envelope or paste on back of penny post card, and mail to your Johns-Manville dealer or Housing Guild member. A trained representative will call to discuss your requirements for a new home or home repairs and improvement.

OFF ALONG THIS LINE • TEAR OFF ALONG THIS LINE • TEAR OFF ALONG THIS LINE • TEAR OFF ALONG THIS LINE

PLEASE GIVE ME FULL INFORMATION ABOUT THE ITEMS CHECKED BELOW

- ☐ A New Home
- ☐ Modernized Exterior with Asbestos Shingles, Asbestos Clapboards, Stucco
- ☐ Asbestos or Asphalt Shingle Re-roofing
- ☐ New Front Entrance
- ☐ Storm Entrance
- ☐ Storm Doors
- ☐ Storm Sash
- ☐ Painting Outside Trim
- ☐ Enclosed Porch
- ☐ Screened Porch
- ☐ New Porch
- ☐ New Garage
- ☐ Garage Lining
- ☐ Home Insulation
- ☐ Weatherstripping
- ☐ Extra Bedroom
- ☐ Extra Bathroom

- ☐ Attic Playroom or Den
- ☐ Basement Game Room
- ☐ Basement Workshop
- ☐ Modern Basement Laundry
- ☐ Modernized Kitchen
- ☐ Laundry Room or Improvements
- ☐ Modernized Bathroom
- ☐ Shower Stall
- ☐ Decorative Paneling for:
- ☐ (Type of Room)
- ☐ Decorative Board Ceilings
- ☐ Built-in Ironing Board
- ☐ Breakfast Nook
- ☐ Telephone Cabinet
- ☐ China Closets
- ☐ Kitchen Cupboards
- ☐ Book Cases

- ☐ Extra Closets (cedar)
- ☐ Extra Windows
- ☐ New Doors
- ☐ Door and Window Screens
- ☐ Shutters
- ☐ Fireplace and Mantel
- ☐ Floor Repairs
- ☐ New Interior Trim
- ☐ Interior Decoration
- ☐ Plumbing Equipment
- ☐ Heating Equipment
- ☐ Electrical Equipment

(Write in items not covered above)

NAME

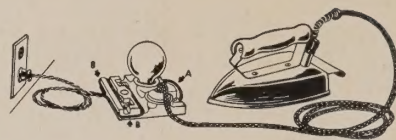
ADDRESS

CITY..... STATE.....

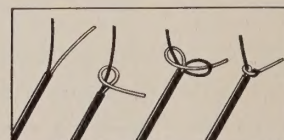
HOW TO REMOVE STAINS

SCORCHED SPOTS: Wool and silk can seldom be restored. Cotton and linen can often be restored if the fibers are not actually burned. Try soap and water, rubbing thoroughly, or wet the spot with water and expose it to the sunlight. Slight scorches can sometimes be rubbed away with bread crust.

FRUIT STAINS: Practically all fruit stains can be removed either by washing the fabrics in cold water and rubbing them thoroughly or by spreading the stained portion over a bowl and pouring boiling water through it from a height of two or three feet. A little rubbing, alternated with the pouring is helpful. Stains from dark red and purple fruits and berries are hard to get out and are set by soap.



To determine whether the break is in the cord or in the appliance, *unplug the device from the house current*, then remove the cord from the appliance plug and twist the ends together. When you plug into the house current again, if the lamp lights, the break isn't in the cord, but in the appliance itself or in the plug. If examination discloses that the trouble lies in the appliance, have a licensed electrician or appliance-company repair man fix it.

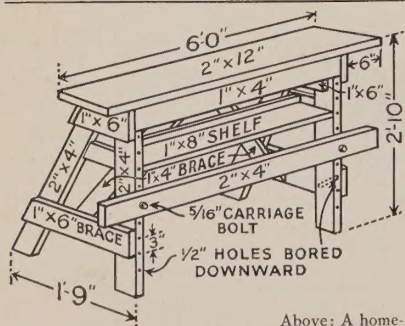


When connecting cord to plugs, tie an underwriter's knot in the two wires before feeding the wire into the plug. It prevents the wires from pulling apart and away from the insulation. The diagrams above show how to make this knot.

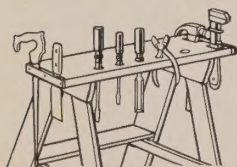
WHEN THROW RUGS TEND TO SLIP

when you walk on them, cut a piece of sheet rubber into 6" x 6" squares and sew them to the corners of the rug. For a suction effect, take three preserving jar rings, wind them together with thread, and sew them to the corners.

FINE CHINA OR PORCELAIN that has been broken so that small pieces are missing, can be mended with white lead-in-oil, which can be molded with the fingers to fill the gaps very neatly. Colors can be obtained by adding dry pigments. This putty sets very, very slowly, and should be used only when you are repairing "show" pieces. Drops of sealing wax at intervals along the break will hold the pieces together until they are completely set.



Above: A homemade work bench that can be moved around easily. Left: Top of step ladder becomes a tool rack.



LEAKING FAUCETS are very easy to fix. Just turn off the water at the shut-off valve or at the meter, unscrew the cap nut and remove the core. Take out the screw which holds the washer, and put in a new washer. Replace the screw; return the core; tighten the cap nut; turn on the water and there you are. Use hard fiber washers for hot water, soft rubber or leather washers for cold water. Lay in a stock of the correct sizes of washers, so you don't have to rack your brains at a later date to remember what size you should get.

WHEN YOU'RE ASKED TO OPEN A BALKY GLASS JAR, cut a narrow strip of sandpaper and place it around the top, rough side in. This will give the necessary "traction" or grip. Lacking sandpaper, try two or three rubber bands.

DRAFTS ALONG THE FLOORS are often caused by a space which appears between the flooring and the baseboards. Other cracks may be found around the window and door frames by removing the frames. Packing these open spaces with felt and plastic cement, and then replacing the trim will reduce these drafts materially. If spaces behind the frames are unusually wide, first apply strips of white pine, then fill in with the felt and cement. Plastic cement is also known as caulking putty and can be obtained from your hardware store or building materials dealer.

SQUEAKY FLOORS can be corrected in several ways. If there are cracks between the boards, talcum powder sifted into them may help. If not, and your trouble lies on the first floor, go down cellar and drive the thin ends of shingles between the sub-floor and the joists, to take up the play. Another solution is to nail through the floor from the top, using small headed finishing nails, and sinking them with a nailset. A good way to stop stairs from squeaking is to drive a long, slender screw through the tread and into the riser to draw them together.

SQUEAKY OR LOOSE-JOINTED FURNITURE can usually be quieted and steadied by tightening the screws which hold the various parts together. For ease of working, turn the piece upside down. If you find that the joints do not tighten to a perfect fit, loosen the screws, and force some glue into the joints wherever possible; then tighten the screws again and let the piece stand for at least two days before placing it in use again.

TO REPAIR LARGE HOLES OR GOUGES IN YOUR PLASTERED WALLS, use one of the standard patching plasters which mixes readily with water, and can be applied with a kitchen knife. After mixing the plaster into a thick mortar, apply it to the gouged spots, then smooth with the knife until brought to the plane of the wall. After it hardens, sandpaper it with very fine sandpaper. Avoid a thin mix. It doesn't set properly.

BEFORE DRIVING A NAIL INTO PLASTER, place it in hot water for a few minutes and it will not crumble the plaster.

TO REPAIR TABLE OR DAVENPORT LEGS that have been split, it will be necessary to glue and screw the parts together. Bore holes into both pieces of the leg, a trifle larger in diameter than the screw head, and about a quarter of an inch down into the wood. Then bore smaller holes—a little smaller in diameter than the screw—down farther into the wood, extending beyond the split. Fasten the pieces together with glue, insert long screws, and tighten them down as securely as possible. Then fill the holes above the screw heads with a patching wood preparation and touch up with stain.

Always sandpaper off old glue before applying the new. On jagged breaks, rub some of the glue well into the broken fibers, using a brush. Wipe off all superfluous glue with a moistened cloth. Always apply pressure to hold the glued surfaces together until the adhesive has set and hardened.

WHEN CHUNKS ARE TAKEN OUT OF CHAIR LEGS or burned into a piece of furniture, try "burning in" stick shellac, using a hot screw driver or a soldering iron. Carefully finish off the surface with a sharp chisel, then rub down with rottenstone and oil. Then polish. Stick shellac comes in various wood colors. If you can't get it, try sealing wax.

WATER-GLASS IS FINE FOR HEAVY-DUTY REPAIRS, when mixed with enough precipitated chalk (a druggist's item) to form a thick paste. It must be used quickly and in small quantities, because it hardens with remarkable speed. Apply with a toothpick, and be sure to wipe off the surplus.

TO REPAIR A CRACKED AND BROKEN CEMENT FLOOR in the basement, remove all bits of concrete; brush sand and small particles away; then paint with a thin mixture of pure cement and water. When hard, fill the hole with a mixture of cement and sand, mixed 1 to 2 parts respectively, with water enough to make a heavy, thick paste. Cover with wet sawdust when the job is completed, and keep it wet for several days.

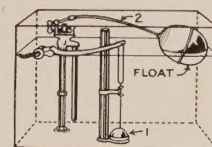


FOR A CHEERY AUTUMN HEARTH FIRE, follow these suggestions and avoid the embarrassment of a smoky, smouldering blaze. Lay the logs in such a way that air can circulate between them. Put the largest log in the back (this is the back-log) and roll it forward when it is burning brightly, replacing it with another. Pile smaller logs in front, with small sticks sandwiched in between. If logs are perfectly smooth and straight, hold them apart with small pieces of wood. Ignite the wood, by placing a wad of excelsior or a lightly wadded piece of newspaper where the flames will pass up through the piled wood. Always try to use dry, well-seasoned wood.

FOR A WEAR-RESISTANT WORKBENCH TOP, brush on a coating of water-glass (silicate of soda) and dust it lightly with cement. The result is a stony surface impervious to almost everything.

TO START SLUGGISH DRAINS to flowing, try the "plumber's friend," which is a suction cup at the end of a stout stick. Fill the tub, sink, or basin, set the suction cup over the drain and pump it firmly up and down. This should dislodge slight obstructions. If this treatment fails, then use one of the chemical drain cleaners now available. If some solid article has gotten into the drain, remove the cap on the bottom of the trap, and go "fishing" with a bent piece of wire.

WHEN TOILET TANKS CONTINUE TO RUN when they shouldn't, probably one of two things is the trouble: (1) the rubber ball closing the outlet valve at the bottom of the tank is worn or hard, or (2) the float mechanism needs adjustment. If it is the first condition, replace the old ball with a



new mushroom ball. If it is the second, bend the float rod a little at a time until the float is low enough to shut off the inflow of water when it reaches a level about half an inch below the top of the overflow pipe. . . . If the rod holding the mushroom ball sticks or does not drop properly onto the valve seat, loosen the screw on the guide arm, controlling this rod, and move it until it is in the position which allows the ball to drop easily and accurately into place. If, after testing these points, the leak still persists, you'll need the plumber.

TO KEEP PAINT in the can without drying up, pour melted wax or paraffin over it, just as a housewife does when she puts up preserves.

COPPER SCREENS can be kept from staining the shingles below the windows, by giving them a coat of spar varnish, thinned with an equal quantity of a half-and-half mixture of linseed oil and turpentine. To apply it without clogging the mesh, tack a strip of deep-pile carpeting to a piece of wood. Instead of dipping the carpeting into the varnish, apply small quantities of the varnish on it with a paint brush.

PAINT BRUSHES can be kept in condition overnight by suspending them in turpentine or raw linseed oil. When through painting, wash them thoroughly with turpentine, then in lukewarm soap and water, after which wrap them in oiled paper, which will keep them soft indefinitely.

WHEN PUTTY BEGINS TO LOOSEN around window panes, scrape it all off, dust off the small particles; paint with a good priming paint and allow it to dry thoroughly. Replace any glazing points which may be missing or ready to drop out. Then apply putty which has been rubbed to smoothness. If putty does not lose its oiliness sufficiently, place it in a piece of wrapping paper for a few minutes, or add a small amount of whiting.

READY REFERENCE TABLES

LINEAR MEASURE	SQUARE MEASURE
12 Inches = 1 Foot	144 Sq. In. = 1 Sq. Ft.
3 Feet = 1 Yard	9 Sq. Ft. = 1 Sq. Yd.
5½ Yards = 1 Rod	30¼ Sq. Yds. = 1 Sq. Rod
40 Rods = 1 Furlong	272¼ Sq. Ft. = 1 Sq. Rod
5280 Feet = 1 Mile	160 Square Rods = 1 Acre
	4840 Square Yds. = 1 Acre
	640 Acres = 1 Square Mile
LIQUID MEASURE	DRY MEASURE
4 Gills = 1 Pint	2 Pints = 1 Quart
2 Pints = 1 Quart	8 Quarts = 1 Peck
4 Quarts = 1 Gal.	4 Pecks = 1 Bushel
31½ Gal. = 1 Bbl.	
2 Bbls. = 1 Hogshead	

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